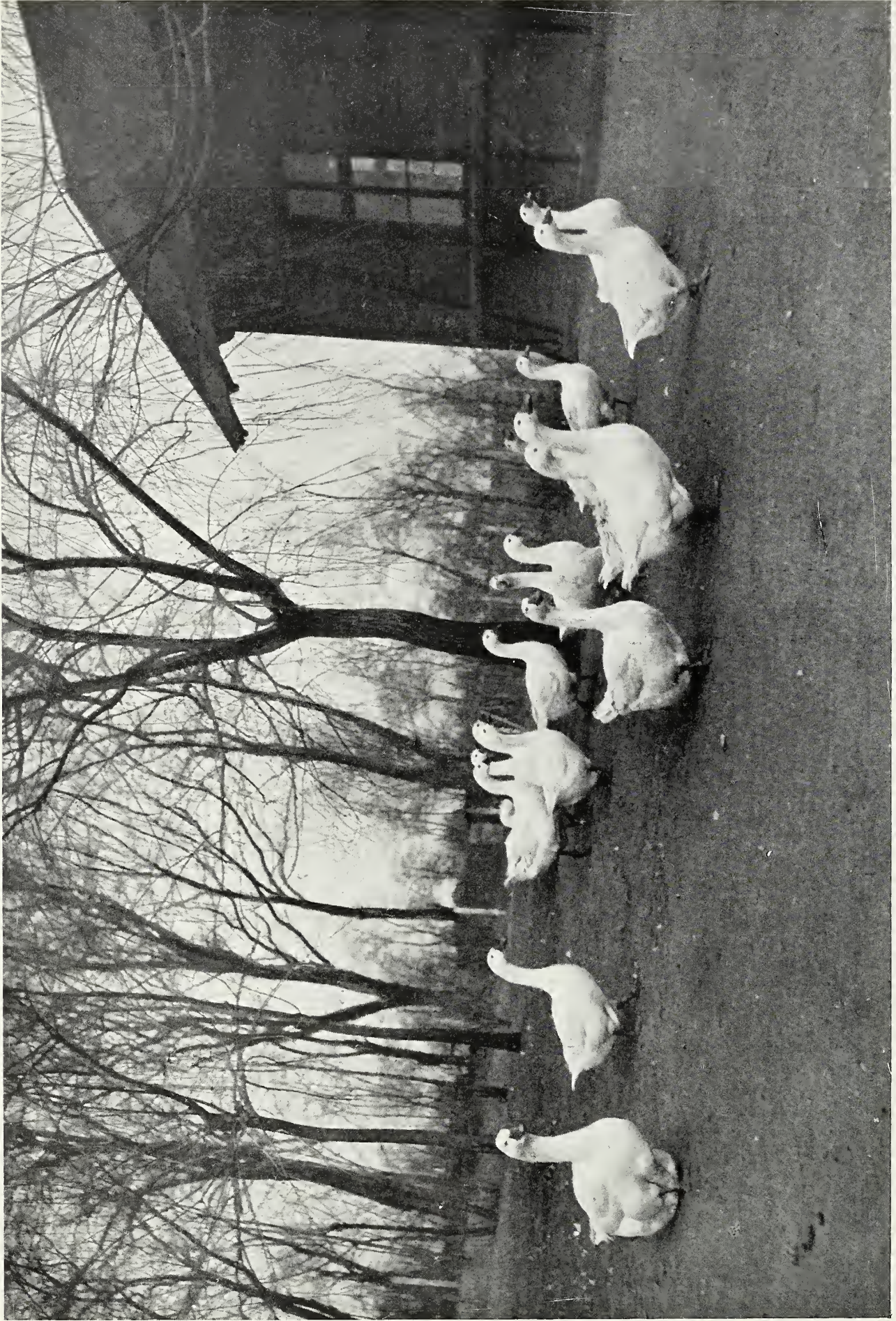


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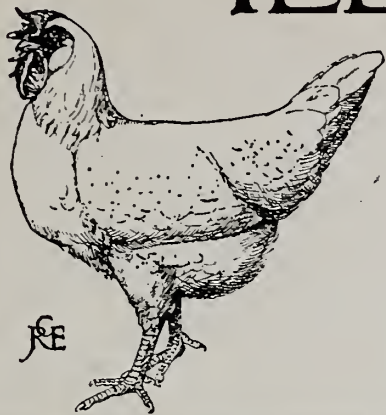


GROUP OF HUNGARIAN GEESE AT THE POULTRY SCHOOL, GODÖLLO, HUNGARY.

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# THE ILLUSTRATED POULTRY RECORD



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## DIARY OF THE MONTH.

### EDITORIAL NOTICES.

Telegrams: "CHICKENDOM." Telephone: 1999 P.O. CITY.

*The Editor will be glad to consider any MSS., photographs, or sketches submitted to him, but they should be accompanied by stamped addressed envelopes for return if unsuitable. In case of loss or injury he cannot hold himself responsible for MSS., photographs, or sketches, and publication in the ILLUSTRATED POULTRY RECORD can alone be taken as evidence of acceptance. The name and address of the owner should be placed on the back of all pictures and MSS. All rights of reproduction and translation are reserved.*

*The Editor will be glad to hear from readers on any Poultry Topics, and all Queries addressed to the paper will be answered by experts in the several departments. The desire is to help those who are in difficulty regarding the management of their poultry, and accordingly no charge for answering such queries is made.*

*The Annual Subscription to the ILLUSTRATED POULTRY RECORD at home and abroad is 8s., including postage, except to Canada, in which case it is 7s. Cheques and P.O.O.'s should be made payable to Brown, Dobson, and Co., Limited.*

*The ILLUSTRATED POULTRY RECORD is published on the first of every month. Should readers experience any difficulty in securing their copies promptly they are requested to communicate immediately with the Editor. The latest date for receiving advertisements is the 20th of the month preceding date of issue.*

*The utmost care is exercised to exclude all advertisements of a doubtful character. If any reader has substantial grounds for complaint against an advertiser he is requested to communicate at once with the Editor.*

### Indictment of County Councils.

In spite of the official reserve with which Mr. T. H. Middleton, Assistant Secretary to the Board of Agriculture, expresses himself in his annual report recently published in "Grants for Agricultural Education and Research, 1907-1908," no more scathing *exposé* of the way in which both central and local authorities have neglected their manifest duty has ever been presented. The restraint which his position compels only adds to the strength of the case presented. The fact is that the Government has starved the Board of Agriculture, and County Councils have for the most part deliberately used money given to them primarily for technical instruction for other purposes. Our correspondent, "Statistician," deals with the question this month in "The Cinderella of Agriculture," to which we commend the attention of all concerned, and we hope that this article may be reproduced by local papers throughout England and Wales and brought forcibly before County Councillors. There is, however, a wider view to which attention should be called. In a most valuable table is shown the expenditure on agricultural education per 1,000 male agriculturists over ten years of age, varying from £3 in the Holland division of Lincolnshire to £220 in Surrey. As it is pointed out:

Three counties expend over £200 per annum per 1,000 (male) agriculturists, 8 counties spend from £100 to £200 per 1,000 agriculturists, 26 between £25 and £50, 8 from £12 to £25, while 4 spend £10 or less. It is a remarkable, and a somewhat discouraging, fact that the four counties in the last group are purely agricultural, and taken all over would probably show a larger proportion of fertile land than any other group of four counties in the kingdom.



### Development of Rural Industries.

The late Prime Minister gave expression in a speech delivered not very long before his death to a feeling which has risen in the minds of many—namely, that we must colonise our own land. Something is being done, slowly it may be, but none the less surely, as a result of the Small Holdings Act. To do this, however, requires money and brains: money to lay the foundations, and brains to use it aright. The Bill foreshadowed in the Budget of the present year has been introduced by the Chancellor of the Exchequer “to Promote the Economic Development of the United Kingdom and the Improvement of the Roads therein.” One of its clauses provides for

Aiding and developing agriculture and rural industries by promoting scientific research, economic inquiries, instruction and experiments in methods and practice of agriculture, improvement of live stock and poultry, co-operation, instruction in marketing agricultural produce and the extension of small holdings; and by the adoption of any other means which appear calculated to develop agriculture and rural industries.

• This is, we believe, the first time poultry has received prominent recognition in a Government Bill.

### Lord Aberdeen on the Poultry Industry.

As was shown in last month's POULTRY RECORD, it is evident that the value of the poultry industry is receiving recognition in high quarters. The Earl of Aberdeen, Lord-Lieutenant of Ireland, in a speech recently delivered in Aberdeenshire, said:

There has been a remarkable development in the matter of eggs alone. During the past three years the value of the Irish business in egg-production has increased by £750,000. This great increase was very much to the credit, first of the Agricultural Department in Ireland, the former head of which was Sir Horace Plunkett, who did fine work, and the present head, Mr. T. W. Russell, an able and energetic administrator; and it was also creditable to the people who had taken advantage of fresh opportunities and fresh methods of developing their business. It was a sign of intelligence and readiness to take up ideas when these were shown to be sound and practicable. If Ireland could do that, why not any other part of the United Kingdom? The National Poultry Organisation Society declared that the present was a very opportune time for increased activity in that department of farming, because several countries which had always been exporting poultry seemed to have got to the limit of their output. This was not so in Ireland, and he hoped not so in Scotland. While they rejoiced at the fact that at present prices for cattle were good, let them not neglect other resources which were perhaps of greater value than they had always got out of them hitherto.

### The Highlands of Scotland.

The Report of the Scottish Poultry Committee, issued last April, is already bearing fruit, though not directly, as the Scottish Agricultural Organisation Society, aided by a grant of £50 from the Highland Agricultural Society, has commenced the distribution of eggs and cockerels with a view to increasing the supply of eggs and chickens and improving the size and quality. Under the scheme adopted by the Society, its local organisations buy cockerels suitable for breeding purposes at a good price, and these are distributed to approved small-holders at a nominal price. What is an integral and necessary provision, those responsible will see that such regulations as have been adopted are carried out. Government action is always slow, and it is satisfactory to learn that by the public-spirited action of the S.A.O.S. something is being done this year, so that the next season's breeding will not be lost. There ought to be no reason why it should not fit into the larger effort which we hope to see made.

### Where to Rear Chickens.

The notes by our esteemed correspondent M. Louis Vander-Snickt on chicken and duckling rearing at Oudenarde, which we publish this month, are in contravention of general ideas, at any rate respecting the former. Dry soil for chickens and meadows for ducklings have been accepted as affording ideal conditions, though in this country the notion has long since been exploded that sandy soil was the best for poultry. So far as moist land is concerned, especially water meadows, the fear has been justified in the case of some breeds, especially if they are to be kept in confinement. But the point raised by M. Vander-Snickt as to the natural food obtainable is very important, more especially since the increased cost of grain and meal has touched the pockets of all poultry-keepers. Reduction of the food bill is desirable, to which end we must look largely to the natural supply. Moreover, it would contribute greatly to the extension of poultry-keeping in many sections if experience justified the contention here put forward. Probably some breeds would be better than others for such places. We should be glad to receive the practical observations of those who dwell upon lands similar to those met with in the Oudenarde country.

### Welsh Poultry Book.

The great success which has attended “The Record Poultry Book,” issued from this office recently, of which many thousands have been sold, has led us to arrange for its publication in the Welsh language, so as to meet the special





## A PAIR OF CHAMPION BUFF ORPINGTONS.

Winners of over 20 first prizes, cups and medals; bred and owned by Art. C. Gilbert, Swanley Poultry Farm, Wilmington, Kent.

R.E.S







needs of those who live in many districts of the Principality. This little work has been translated by Mr. Walter Williams, organiser for Wales of the Agricultural Organisation Society. We are certain it is well written, although we cannot read a word of that language. The opportunities for development of the poultry industry in Wales are enormous. Something has been done, but comparatively little, and it is a startling fact, as pointed out in our August issue, that although the mining and manufacturing sections are restricted to a small part of the South, and the greater area of the country is agricultural, Welsh supplies are not more than half of the

operation was avoided, and the last reports received were that he was better, though naturally extremely weak. Mr. Brown was specially disappointed at not being able to reach Niagara Falls in time for the meeting of the American Poultry Association, at which he had promised to deliver an address, as he would there have met many of the leading Canadian and American poultry-breeders.

#### A New Feature.

We call the attention of our readers to a new feature that we have introduced into the ILLUSTRATED POULTRY RECORD—namely, the section



HOUDANS ON AN EAST ANGLIAN FARM.

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national consumption. Some light is thrown upon the reasons for such a state of affairs in the map given on another page.

#### The "Record" Commissioner in America.

We regret to announce that a somewhat serious illness has interfered with the work of our Special Commissioner, Mr. Will Brown, and as a consequence he has been unable to visit Oregon and California, as intended. When in British Columbia Mr. Brown was taken ill with what the doctor declared to be appendicitis, and he had to go for some weeks into a private hospital at Victoria, Vancouver. Fortunately an

headed "The Poultry-Keeper's Other Interests." "Home Counties" has undertaken to conduct this section, and we have little doubt that in his hands it will prove a most attractive addition to the paper. Its character and aim may be gathered from "Home Counties'" opening contribution to this issue. We also have pleasure in announcing that Mr. Edward Brown, F.L.S., has joined our staff of sectional editors, and will henceforth be responsible for the supervision of the Foreign and Colonial sections, in regard to which his wide and well-known experience of poultry-keeping in other lands should be of inestimable value.



## THE CINDERELLA OF AGRICULTURE.

### HOW THE POULTRY INDUSTRY IS NEGLECTED BY COUNTY COUNCILS.

By "STATISTICIAN."

WHEN the "Whisky Money" was allocated to County Councils eighteen years ago, although no actual provision was made as to its expenditure, the understanding was that it should be applied for the promotion of Technical Education, in which direction this country was, and is, so lamentably deficient, and that if used in relief of rates it might be withdrawn. For some years a fair proportion was expended for the purpose named, of which poultry-keeping received a modest, though never an adequate, share. Since the Education Act of 1902 was passed, by which the responsibility for Elementary and Higher Education was placed upon the County Councils, Technical Education in Agricultural subjects has suffered. Instead of the greater support demanded by the growing consumption of eggs and poultry, the poultry industry has received less attention. The truth is that but for pressure upon these public bodies by central authorities, and, in some cases, local demand, Agricultural Education in all its branches would have suffered more than is even now the case.

It is not my purpose to discuss whether Agricultural Education has ever received its due share of the Residue Grant, for that is generally admitted not to be the case. In some counties which include large industrial centres, the proportion allocated to Agriculture may occupy, *pro rata* to production, something like its proper place, though even in those areas an increased food supply is of supreme importance. These come out better in comparison with the farming counties, which are far behind. That there is a prejudice against education is generally apparent, and antagonism to encouragement of the poultry industry in particular. Taking county areas in England and Wales, the following are the figures :

Year.	Total Amounts received from Residue Grant.	Amount Allocated to Agricultural Education.	Amount Applied to Poultry Instruction.
1901-2 ...	£551,642	£86,972	£3,241
1902-3 ...	511,707	88,151	3,284
1903-4 ...	513,035	90,278	3,105
1904-5 ...	507,851	86,900	3,145
1905-6 ...	473,447	83,987	3,132
1906-7 ...	455,289	79,805	2,527
1907-8 ...	463,053	75,822	2,538

Whilst it is true that there has been a large reduction in the grant, due to the falling consumption of spirits, it will be seen that the year following the Education Act of 1902 was the

high-water mark, and there has been a heavy decline in the Agricultural Education money, equal to more than 16 per cent. But in the same period that spent upon poultry teaching has been reduced nearly 23 per cent.

Many counties make grants to agricultural colleges and schools. In 1903-4 the sum thus applied was £32,146, but this has been reduced, and in 1907-8 the total was only £21,737, a decline of nearly 33 per cent. Whilst expenditure upon other branches of education has advanced by millions, this decline expresses the view of County Councils as to the value of agricultural teaching. Nor has there been any commensurate increase in the Board of Agriculture grants to these institutions. Although poultry-keeping shares to a limited extent in these, I question whether the various colleges expended more than £1,000 last year for this subject.

Coming to definite teaching of poultry-keeping, as stated above, only £2,538 was expended in 1907-8 by all the counties of England and Wales, and out of the grants made by the Board of Education only two were for bee-keeping and poultry-keeping. In eight instances of the former, however, instruction on this subject is given by agriculture or dairy teachers, or in other ways, and the cost is included under different items. Probably if we add £200 to the total named, that will be a generous allowance. Whilst, therefore, every subject receives less than its due meed of encouragement from the "Whisky Money," poultry comes out the worst proportionate to its national value, as the following table shows :

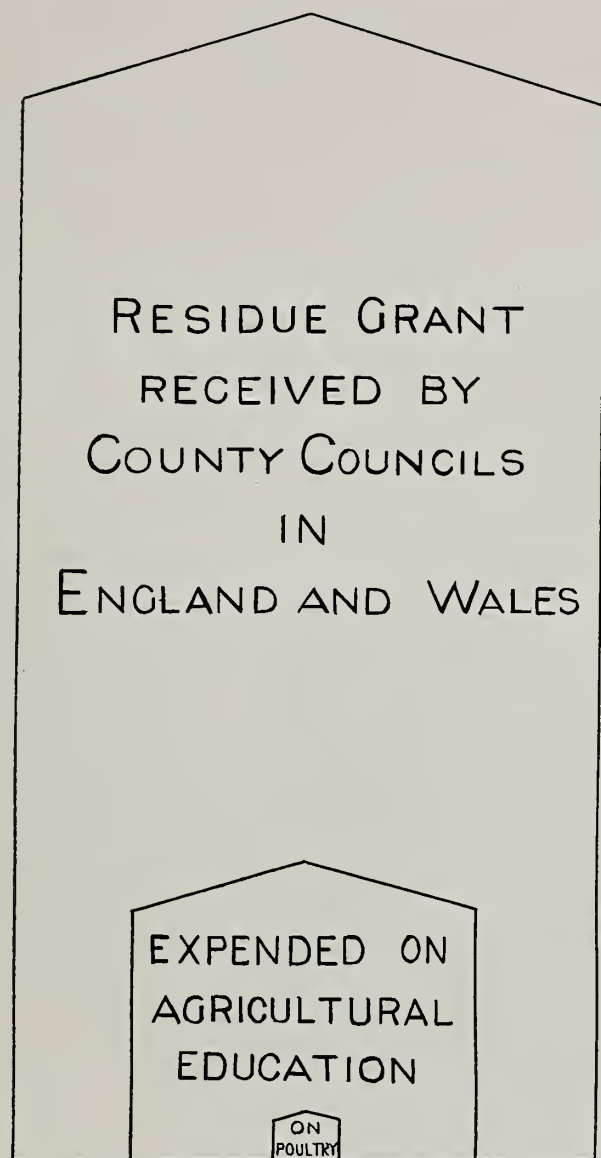
Distribution of expenditure on Agricultural Education by English and Welsh counties, 1907-8 :

	Amount.	Percentage.
General Expenses .....	£9,513	12.54
Dairy Instruction .....	10,218	13.48
Agricultural Lectures ..	3,636	4.8
Poultry-Keeping .....	2,538	3.34
Farriery and Veterinary Science	2,890	3.81
Bee-Keeping .....	1,115	1.47
Horticulture .....	8,443	11.13
Manual Processes.....	2,061	2.72
Miscellaneous .....	10,113	13.34
Grants to Colleges and Schools	21,737	28.67
Total .....	£75,822	100.00

Comparisons are odious and apt to be misunderstood, but these statistics prove that poultry-keeping is the Cinderella of agriculture.



Diagram I. shows (1) the relative volume of Residue Grant received by County Councils, (2) the proportion applied to Agricultural Education, and (3) to poultry-keeping, from which it will be seen that the last-named is very small indeed.



Total Residue Grant, £463,053; expended on Agricultural Education, £75,822; expended on Poultry Instruction, £2,538.

Considering the relative importance of poultry-keeping to agriculture, we are not over-estimating when we say that 15 per cent., apart from general expenses, of the money expended on Agricultural Education by County Councils should be devoted to this subject. The experience in Ireland has proved that poultry brings the greatest return of any such expenditure. If that had been so, the amount would have reached £9,946, or an increase of £7,408. On the 15 per cent. basis only one county last year exceeded it, and that was probably a spurt, and not a steady effort.

Diagram II. is a map of England and Wales (I have not been able to obtain returns for Scotland) which proves more clearly than can figures the neglect of poultry-keeping by county

authorities, and how they have manifestly injured the nation at large. In the map I have made 10 per cent. indicate an attempt to deal fairly with this subject, though an important inquiry would be the percentage of Residue Grant applied to Agricultural Education, for starving one means starving the other. The following tables give the figures and percentages:

Amounts expended by County Councils on Poultry Teaching and Experiments, with percentages of total sum, as applied to Agricultural Education, 1907-8:

County	Sum Expended on Poultry Instruction.	Percentage of Agricultural Expenditure.
10 per cent. and upwards (white on map).		
Huntingdon .....	£58	19.2
Cardigan .....	30	12.44
Norfolk .....	223	12.12
Wilts .....	242	11.72

Under 10 per cent. and over 5 per cent. (light grey on map).

Gloucester .....	£167	9.9
Somerset .....	209	8.57
Worcester .....	176	8.52
Devon .....	157	7.64
Kent .....	361	7.53
Monmouth .....	100	6.1
West Suffolk .....	16	5.84
Warwick .....	45	5.76
Northampton .....	21	5.61

Under 5 per cent. (dark grey on map).

Lancashire .....	£350	4.67
Montgomery .....	10	4.03
East Suffolk .....	10	3.43
Yorks, West Riding..	113	2.9
Hereford .....	34	2.58
Hertford .....	43	2.48
*Cornwall .....	50	2.43
Cumberland .....	31	2.25
Yorks, North Riding	47	2.03
Stafford .....	27	1.06
Yorks, East Riding..	17	0.97

\*For experimental work.

#### THE BLACK LIST.

Counties which expend no money on poultry instruction (black on map).

Anglesey	Lincoln, Holland
Berks	„ Kesteven
Brecon	„ Lindsey
Cambridge	Merioneth
Carmarthen	Middlesex
Carnarvon	Northumberland
Denbigh	Nottingham
Derby	Oxford
Dorset	Pembroke
Flint	Radnor
Glamorgan	Rutland
Isle of Ely	Salop
Isle of Wight	West Sussex
Leicestershire	Westmorland

Expenditure and percentages of the following counties cannot be given, as instruction in poultry-keeping is through institutions or by dairy and other teachers (see list of lectures on page 9):

Bedford	Essex
Buckingham	Hants
Chester	Surrey
Durham	East Sussex





The Counties shown Black gave no Poultry Instruction in 1907-8; those Dark Grey expended less than 5 per cent. of the Agricultural Fund in Poultry Teaching; those Light Grey expended 5 to 10 per cent.; those shown White, 10 per cent. and upwards.



They are, therefore, included in the third grade (dark grey on map).

The subjoined table indicates the number of lectures given and classes held in each county, apart from colleges and institutions to which the counties contribute.

County.	No. of Lectures.	County.	No. of Lectures.
Anglesey .....	0	Lincoln, Kesteven .....	0
Bedford .....	5	"    Lindsey ...	0
Berks .....	0	Merioneth .....	0
Brecon .....	0	Middlesex .....	0
Buckingham .....	36	Monmouth .....	30
Cambridge .....	20	Montgomery .....	10
Carmarthen .....	24	Norfolk .....	72
Carnarvon .....	0	Northampton .....	10
Cheshire .....	0	Northumberland ...	0
Cornwall .....	0	Nottingham .....	16
Cumberland .....	25	Oxford .....	0
Derby .....	0	Pembroke .....	0
Denbigh .....	2	Radnor .....	30
Devon .....	25	Rutland .....	0
Dorset .....	0	Shropshire .....	0
Durham .....	13	Somerset .....	80
Essex .....	17	Stafford .....	18
Flint .....	4	East Suffolk .....	12
Gloucester .....	60	West Suffolk .....	8
Glamorgan .....	0	Surrey .....	10
Hants .....	0	East Sussex .....	84
Hereford .....	16	West Sussex .....	0
Hertford .....	16	Warwick .....	48
Huntingdon .....	8	Westmorland .....	5
Isle of Ely .....	0	Wilts. ....	114
Isle of Wight .....	0	Worcester .....	51
Kent .....	100	Yorks., East Riding	10
Lancashire .....	43	"    North Riding	25
Leicestershire .....	0	"    West Riding	75
Lincoln, Holland ...	0		

So far as experimental work is concerned, the only record I can find is that Cornwall

devoted £50 to this purpose. The total grants made by the Board of Agriculture in 1907-8 amounted to £380, of which £25 was for poultry. In the same period £43,504 was expended in the United States for poultry experimental work alone.

The foregoing facts, taken from the "Annual Report on the Distribution of Grants for Agricultural Education and Research" for 1907-8, issued by the Board of Agriculture (Cd. 4802), prove abundantly:

First, that the proportion of the residue grant appropriated by the respective County Councils to Agricultural Education is totally inadequate, and should be largely increased;

Second, that of the amount expended on Agricultural Education an average of 3.34 per cent. only is devoted to instruction in poultry-keeping, whereas it ought to be nearly five times as much;

Third, that a branch of food supply costing the people of Great Britain £20,000,000 annually, of which £8,000,000 goes to foreign countries, and is growing rapidly, demands adequate encouragement;

Fourth, that twenty-four County Councils in England and Wales give no poultry teaching whatever.

Fifth, that only one county makes any provision for, or contribution to, experimental and research work; and

Sixth, that a determined effort should be made in every county to remedy what, in the words of a well-known Member of Parliament, is a scandal.

## NEW BREEDS OF POULTRY.

By W. W. BROOMHEAD.

DURING the past ten years or so it is probable that more so-called "new" varieties of poultry have been placed before the public than has been the case since "the hen fever" first took hold of this country. Those of us who have watched the growth of the poultry fancy have seen many breeds brought out and boomed. Some of them lasted for a season or so and then became defunct, while others have stood the test of time and much opposition, and are still flourishing. Complaints have been made that nowadays there is too great a craze for novelty, and it has been suggested that, instead of continually seeking for something fresh, the fancier should strive to perfect the races which he already possesses, since, be it noted, it is rarely that the strictly utilitarian poultry-keeper can be charged with bringing out a new variety.

There can be no question that the tendency of recent times has been for something new, and it may not be out of place to inquire briefly into the causes of it. That a demand exists is beyond doubt, since no sooner is a new breed or variety announced than several members of the poultry fraternity are eager to form a specialist club to boom it. May it not be that to a great extent this tendency has been forced upon poultry-keepers simply on account of the monopoly that exists with most of the older breeds? It too often happens, when a breed is firmly established, that a select few endeavour to get it into their hands. And not content with having things practically to their own liking at the most important events of the season, they must needs enter their best birds at the small shows, with the almost inevitable result that other fanciers are



driven from the field. This has been the downfall of more than one of the old breeds, and not, as so many people are apt to imagine, because the fancier has bred for the exaggeration of some minor point, and entirely lost sight of utility properties.

No matter how carefully some writers may attempt to disguise it, the fact remains that of late there has been far too much "swamping," and at almost every exhibition where the prize-money is worth travelling for, the amateur is bound to be met by the same teams of winners, against which he knows that his birds do not stand much of a chance. A continuance of this sort of thing is likely to disgust the beginner; and if his interest in the Fancy has to be maintained he must be given a chance, which often comes with the introduction of new varieties. It is not unreasonable to imagine, therefore, that this "swamping" may have led very largely to that end. It is well known that the "big guns" of the Fancy rarely, if ever, go to the trouble of bringing out a new variety; they step in afterwards. The preliminary work is generally left to some obscure plodder, whose interest in the Fancy is purely as a hobby, with the financial aspect kept well in the background. There are exceptions to this rule, as, indeed, there are to all others; and occasionally one hears of a poultry-keeper endeavouring to launch out in a new line solely for the money it may bring in.

There are, of course, other reasons for the introduction of new breeds. For instance, it cannot be denied that new breeds or varieties very often appeal to those people who have never previously taken a keen interest in poultry, and as an outcome the Fancy may be largely increased by these recruits. They offer the ambitious beginner a chance to blossom forth as a prize-winner, since under the present conditions of introducing new breeds there is every prospect of a raw novice breeding as good a show specimen as there is of "the old hand" getting to the top of the list with it. That of itself may be sufficient excuse for their introduction from a fancier's point of view. And is it not to his advantage to know that there is someone to whom he can dispose of his wares at higher figures than mere killing prices? There is yet another reason. A race of poultry cannot be maintained at a high standard of perfection for a great number of years without the infusing of foreign blood. This does not, perhaps, so often lead to the introduction of distinct new varieties as to the alteration of the old, although it is becoming common to refer to the, shall we say, "improved" type as "modern."

Events have proved that the great mistake of

late years has been in placing the produce before the public ere it has passed out of its preliminary stage, of booming the varieties while they were of a more or less mongrel stamp, and therefore as likely to throw several distinct types as to produce one specimen approaching in general characteristics the ideal standard set up for it. The Poultry Club has been severely criticised for many of its undertakings, but it was none too soon with its regulations governing the introduction of new breeds and varieties. Had it set out on that mission many years ago it might have done untold good in checking the multiplication of breeds. It now remains to be seen whether the club will get the full support of fanciers and show committees, which is necessary to carry the regulations to a successful end. If there is to be any rhyme or reason in connection with the matter some such rules as those which have been recently approved by the Poultry Club Council are inevitable. Fanciers must join hands over the issue, since it will be to their benefit to do so.

It has been a comparatively easy matter to bring out a new breed. One has merely had to cross two or three established varieties, or even to take a "sport" and breed carefully from it, to get specimens differing in certain points from those of existing and recognised breeds. All fancy fowls are apt to sport. To give a few examples. It is by no means rare to get yellow-legged progeny from Buff Orpingtons, and which pass muster as Buff Plymouth Rocks. There is no difficulty in producing single-combed White Wyandottes, which do well as White Plymouth Rocks. Then, again, Light Sussex, Columbian Wyandottes, and Columbian Plymouth Rocks (the last-named is one of the very latest introductions) are not far removed from one another; and, in the case of the Columbians at least, it is possible to obtain specimens of both breeds from the one mating. There is, of course, the greatest farce of all, the Speckled Sussex and the Jubilee Orpington, the one breed masquerading under two distinct names; and the pity is that the Poultry Club has countenanced this nonsense by providing for both of them in its standard of perfection.

It is evident that had the so-called "modern" White Leghorn been kept back for two or three seasons, the change in the type and size of the variety would not have been so noticeable. But who could wonder at many complaining when a fowl which belonged to the Italian race was suddenly changed from a light and active type to one of twice its size and weight, ungainly in the extreme, and possessing many characteristics which were altogether foreign to its nature? The variety has, however, gradually fined down, and specimens of this season's breeding are much nearer the Leghorn type than was the case when



the "modern" first came out. The Black Wyandotte is another variety which was sent out far too early. Some of those fanciers who were among the first to take it up of recent years—it is supposed to have been originated when Wyandottes were first imported from America—were exhibiting none other than utter mongrels and first crosses as such. More than one fancier was breeding show specimens from Golden Wyandottes and Black Orpingtons. Then take the rose-combed Black Leghorn; here is yet another example of rushing a variety forward ere some definite characteristics had been established. It was not rare to find culls from Black Wyandottes, themselves not much better than mongrels at the time, exhibited as rose-combed Black Leghorns.

Now, in what direction is this all tending? Is it leading to a stronger Fancy, or is it likely to disgust people and drive them eventually out of poultry-keeping? Time alone will show. Apparently reforms are needed; and it will be an excellent thing, for the Fancy when it can be

thoroughly regulated by a Poultry Club with a firm policy. Reforms move slowly, so it is said; but there is no reason why they should not move quickly. Some people assert that the new breeds and varieties will find their own level. Certain it is that if a breed has to be popular, and remain so, it has to be more than merely beautiful. The beautiful appeals to many; but a breed as a purely fancy kind will not exist for long except in the hands of a few. It has to possess good utility properties, since it is patent that all chickens which are reared, even if reared from the best stock in the land, cannot be sold at fancy prices. Get a breed useful as well as ornamental and its popularity is practically assured. The useful properties are not difficult to attain, since the mere crossing of two or three distinct varieties will generally do this. It remains with the fancier to perfect the ornamental. And since that is his share, let him see to it that his new breeds and varieties are not put on the market while they are yet in the rough.

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## POULTRY - BREEDING: MORE PROBLEMS AND POSSIBILITIES.

By EDWARD BROWN, F.L.S.

KNOWLEDGE and experience are gained in various ways. Perhaps the best method is when several brains bent on attainment of the same object criticise one another in the light of their own experience. So long as that is done in the spirit manifested by those who have commented upon my article in last February's ILLUSTRATED POULTRY RECORD, entitled "Poultry-Breeding: Problematical and Possible," nothing but benefit can accrue. It is sometimes pleasant to be shot at, say, when the darts are aimed without venom, and against ideas, not personalities. In this way we may hope to find the truth for which all are seeking. Evidently, however, my statements struck home in one or two instances, and were antagonistic to the methods of breeding adopted. That appears to be specially so with Miss Galbraith (June, 1909, page 561, Vol. I.), whose method of mating as described has successfully produced heavy layers, but which seems to be designed, in the light of past experience, to bring about weakness and degeneracy. These may be delayed by care and rigid selection, but, in my judgment, assuredly will be brought about sooner

or later. We cannot thus contravene natural laws without paying the penalty. In this instance the "Spartan" system of rearing will do something, and is, therefore, to be commended, but my firm belief is that even it will do no more than retard the ultimate result. Occasional in-breeding is necessary to secure definite objects, but, if continued, must be disastrous. That, however, need not delay us further.

The mistake which is made by many breeders is in thinking that if evil effects are not rapid they are absent altogether. The minuteness of each step in the downward tendency leads to the view that it is non-existent, than which no greater mistake could be made. It is the aggregation of several years we should regard, not the annual loss. The latter may be regained. The former means a gradual reduction in the qualities of our stock, and, consequently, the profit derived therefrom. Because we can trace very little, if any, loss of vigour in any given year as a result of methods adopted, there is serious danger of assuming that these are on a right basis. And those who seem to think that qualities can be



developed by leaps, who imagine that 250 or even 200-egg hens can be bred in the course of a year or two, are most liable to ignore fractional decadences, for the present compensated by considerable gains. One of the main purposes of the article referred to was to show that what ought to be aimed for is not the breeding of a few abnormal layers, but the raising of the average fecundity of an entire breed or strain. That the latter can be done is possible, though later experience at the Maine Experiment Station and elsewhere has shown that "trap-nesting" and selection of prolific layers as breeders does not permanently accomplish the purpose. That there was a temporary gain is evident, as the modified average increased from 136.36 in 1889-1900 to 159.15 in 1902-3, falling again to 142.77 in 1906-7 in flocks of an average number, spite of the fact that no hen was employed as breeder who had not in her first year produced 160 eggs or more, and no male whose mother had not laid 200 eggs or more. The gain of 6.41 was something (in 1903-4 the average was only 129.14), but small as compared with the hopes of the promoters, and nothing more than had been secured a thousand times before by ordinary methods.

Objection has been taken to the use of the term forcing as applied to laying competitions both at home and abroad. That the system of feeding is more careful and tends to greater egg-production than would be the case under ordinary conditions can scarcely be questioned. But I did not suggest that this was the main or chief cause of high records. Nor yet the housing. It has been a common idea that warm houses induce laying, which may be true to a limited extent for a short period, but at Street and elsewhere such were not used. My point is that the forcing consists in the size of flocks, why I cannot say, but experience has shown that increase in the number of birds kept in one house with an equal increase in the cubic air space means reductions in the average egg-production, and *vice versa*.

Some very valuable evidence is given in a recent publication by the United States Bureau of Animal Industry (1), written by Professors Pearl and Surface, relative to the Maine experiments, in which it is shown that—

With the general plan of feeding and housing followed at the Maine Station, even though the amount of floor space per individual bird remains the same, the average egg-production per bird in a year's laying is distinctly and significantly smaller when the birds are in flocks of 100 than it is when they are in flocks of 50 birds each. The differences between the averages for 100-bird pens and 150-bird pens are, on the whole, distinctly larger than those between the 50-bird and 100-bird pens.

The actual figures are supplied in the following table :

SIZE OF FLOCK AND FLOOR SPACE TO MEAN ANNUAL EGG-PRODUCTION.

	50-bird Pens. No. of Eggs.	100-bird Pens. No. of Eggs.	150-bird Pens. No. of Eggs.	Excess of 50 over 150-bird Pens.
1904-5...	134.60 ...	133.61 ...	114.54 ...	20.06 eggs
1905-6...	140.31 ...	127.50 ...	119.43 ...	20.88 "
1906-7...	114.16 ...	108.53 ...	101.08 ...	12.08 "
Mean...	129.69 ...	123.21 ...	111.68 ...	18.01 "

Such figures are startling, and at once lead us to inquire how far production can be increased by reduced numbers. We have got down to six. Perhaps if in a laying competition we had every bird in single pens 300-egg maximums might be reached, with an average well over 200 per annum. That would not be economic, but neither is the present method, whether in Australia or England.

No other conclusion can be arrived at than that the results obtained in laying competitions, and to some extent efforts towards the 200-egg hen, are valuable in demonstrating what can be accomplished under certain favourable conditions, and showing that individual pullets can be secured producing a large number of eggs. These facts were known before, though the data were less complete. But the former, at any rate, are of little value except to the small poultry-keeper, the man who keeps his birds in runs, and can divide them up into half-dozens. To the farmer or poultry-farmer who has greater numbers they are of little use, save to state who has stock for sale which has shown its prowess in fecundity, some part of which he may be able to obtain, but not to the same degree. If he buys from that stock he must not and will not get equal results, any more than every purchaser of birds bred from Crystal Palace winners could be expected to rival the progenitor. The budding exhibitor must learn the tricks of the trade, how and when to hatch, how to feed, to prepare for show, to dress, perhaps even to fake, ere he can hope to compete successfully. The element of chance is a great factor, as of changed environment.

What we now want in laying competitions is to consider the larger question. The small man has had his opportunity. Further effort on that side may be of interest, nay, more, of stimulus, but anything beyond that is very doubtful. We should see what can be done under commercial conditions, such as may be reproduced a thousand-fold in every county, by farmers and others. Flocks should consist of 25 fowls, two of which might be placed in half-acre colonies, of course with two houses, and thus prove whether that system is profitable or not. Then we should have something of value to go upon, and that would help solve the broader question as yet



untouched. The average laying of such flocks would be more of a real test than is now the case with small lots. Whether breeders would be willing to send 25 birds into competition remains to be seen. The need for such a competition or experiment is apparent the more we study the Maine and other experiments on a larger scale, for in no one of these have the averages been at all approaching the "sprinter" records. The latter are misleading for the general farmer or larger poultry-keeper who is unfortunately often deceived by the flaring advertisements of 200-egg strains, which do not exist.

It has been my firm opinion for some time that pedigree breeding has been carried to an extreme and in that way has to some extent defeated the object for which it has been adopted. The danger is that pedigree is thought to be everything. That which is merely abnormal is easily lost, and, therefore, pedigree may be of comparatively small value. Until the germ—that is, the entire nature—has been modified in the new direction no permanent results can be hoped for. Such can only be accomplished by years of effort. Individual variations are of small moment. These are mutations, and the greater they are the more will be the rebound. To call some fowls Pedigree Strains is a farce—or worse. Registration means little so far as a few generations are concerned. At the same time, I cannot but feel that it is largely by selection we shall improve the race, but by sensible and reasonable selection. Failing that, where are we to look? All past experience has shown that in this way the qualities of our various classes of stock have been developed, and it is unthinkable that the system was erroneous. But that was a slow yet steady method, not seeking to do in five what needs fifty years for its accomplishment. I was not prepared, therefore, for the records of the Maine experimentors, Drs. Raymond Pearl and F. M. Surface, when they showed that on the Station the progeny of unregistered hens gave better results than those selected as exceptional layers. Taking the eight months, Nov. 1, 1907, to June 1, 1908, these are the results:

50-bird pens.	Registered.	Unregistered.	Differences.
Nov. 1—March 1 .....	19'38	... 15'92	... + 3'46
March 1—June 1 .....	53'38	... 46'83	... + 6'55
100-bird pens.			
Nov. 1—March 1 .....	2 43	... 15'92	... + 5'51
March 1—June 1 .....	45'65	... 46'83	... - 1'18
150-bird pens.			
Nov. 1—March 1 .....	17'89	... 15'92	... + 1'97
March 1—June 1 .....	47'97	... 46'83	... + 1'14

Thus in five cases out of six the selected were inferior to the registered. There is plenty to think about in these figures, but it would be a mistake to build up a thesis on such a small

amount of evidence, or to abandon a system long followed, and under which large success has been attained on a single experiment.

It is satisfactory to know that Mr. Howard L. Hewitt (April, 1909, vol. I, pp. 440-441) and Miss Galbraith have so far succeeded in preventing the weakening of their stocks. The gentleman named does not say how far his birds are in-bred, the lady is evidently an advocate of a system which is recognised as probably fatal to maintenance of vigour with all classes of stock. Few can adopt her "Spartan" method, and we have to think of the many. The cases she cites I accept without question. But, if I may respectfully say so, they prove little. The time has not yet arrived when the results will become apparent. We cannot argue upon three seasons' breeding. It is easy when weakness is found to assume that it is due to other causes, to say that one thing is responsible, not another. Questions can be asked to which no answer is possible. If after ten or fifteen years' breeding upon what I regard as an evil system, one which in the hands of general poultry-keepers would mean ruination of our domestic fowls, if these in-bred, abnormal layers are found to have retained their vigour, to be as precocious, as easy to rear and to keep, if the eggs laid by them are as fertile, then the risks will have been fully justified, and show that selection for vigour and fertility has successfully overcome the tendencies on the other side. That such has been and will yet be done must be admitted, but, as one writer has put it, in-breeding "has been followed alike by the most strikingly successful results and by the most stupendous disasters that ever overtook the breeding business." But as it is here that the danger lies, line-breeding and in-breeding are necessary to fix type and external characters. It is, however, yet to be proved that productiveness can be advanced by the same process. The great risks are to be found in loss of vigour and fertility, which are essential factors in egg-laying as in other qualities. In the haste to achieve a given purpose short cuts are often taken which, by ignoring other points of equal importance, bring the whole house of cards tumbling about our ears. I have seen enough of the evil effects of in-breeding to utter this strenuous note of warning. If individual breeders are willing to gamble with natural forces on the chance of coming out with a big success, well and good, but the poultry industry will not be advanced on these lines, and with that I am specially concerned. The amateur or the professional breeder who is playing for high stakes can look after himself or herself. It is the general good I endeavour to promote. The breeding of sprinters is largely a gamble.

Early maturity and precocity are more than



desirable ; they are essential factors. The early-laying pullet is the one which generally lays the most eggs. Unless the reproductive instinct is used when it comes into operation, lack of force is the result. Nor does it necessarily follow that chickens bred from pullets are always weaker than those from more mature birds, but when forcing has taken place, and the later eggs in a season are hatched, the evidence is certainly in favour of the view that there is loss of vigour. Under these circumstances the wiser plan is to wait until the next season before mating such birds. My opinion as to forcing is given on page 12, and no more need be said on that point. One great objection to the present-day laying competitions is that these contests are so arranged that either they conclude prior to the breeding season commencing, in the sixteen weeks' competitions, or mating takes place in those extending over six months, the result of which in either case does not give the birds a chance of recovery

from the strain, more especially in the non-sitting breeds. Breeders of poultry have a great advantage over those who deal with mammals, in that during the yearling period, when the laying quality can be tested, the next generation need not be affected adversely.

In spite of what has been said, and with this I must conclude, I repeat what is my firm opinion, in which breeders of all classes of stock will agree, that the stock from which abnormally productive animals are bred are of greater value for breeding than the latter are themselves, and it is to them we should look for advancement of the standard, for, as a rule, they have not been weakened by excessive production. If choice were offered me, I should have no hesitation in preferring the parents of the winning Street pen rather than the winners themselves. And, further, I maintain that 200-egg and 250-egg hens are in every sense "mutants."

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## A NEEDFUL REFORM.

### EXORBITANT CHARGES MADE FOR CARRIAGE OF FOWLS BY RAIL.

MANY poultry-keepers, more especially those who breed exhibition birds, are under the necessity from time to time of sending their birds by rail to the different shows up and down the country. The sending of valuable birds by rail is a proceeding which exposes them to considerable risk, and against this risk their owner wishes to protect himself. The injustice and unreasonableness of the charges made to secure full compensation, should the birds be damaged or lost on rail, prompts us to inquire how the passing of the Railway and Canal Traffic Act imposed upon railway companies the duty of providing reasonable facilities for the carriage of animals, and at the same time provided means by which the companies might protect themselves against unreasonable claims.

According to this Act, railway companies are bound to afford facilities for the carriage of animals, but they are not bound to carry animals with all the liabilities of a common carrier ; that is to say, they are not common carriers of animals. This Act, therefore, allowed them to make special conditions with regard to the carriage of animals, one of the conditions being that they should only be liable for loss or injury done to animals or goods if such loss or injury was occasioned by the *negligence* or *default* of the company or any of their servants, and any

notice or condition which the company might make to the contrary was to be null and void.

As we have said, the Act allowed the companies to make such conditions with respect to the receiving and forwarding and delivery of animals, and it was for the Courts to say whether in any particular case the conditions were just and reasonable. The hardship of these conditions is one of our chief causes of complaint. When a poultry-keeper wishes to dispatch his birds by rail, there are open to him three sets of conditions under which he may send them :

I. Owner's risk rate (limiting the value recoverable to 5s. for each bird).

II. Company's risk rate (full value of bird recoverable).

III. Owner's risk low rate (nothing recoverable if bird damaged or lost).

Let us examine each of these in more detail. In the first case, which is the rate most usually adopted by poultry-keepers, the rate charged is an authorised rate charged according to the distance to be travelled. Birds sent under this rate travel at the owner's risk, and the company are only liable in a case where there has been negligence on the part of the company.

These conditions, we need hardly say, are very rarely, if ever, brought to the notice of the con-



signor when he hands in his birds. He is given a form, it is true, on the back of which is a good deal of printing setting out the conditions under which the bird is to be carried; but how many poultry-keepers have the time, or, even if they had, how many would trouble themselves, to read through all that is printed on this form? The result is he sends off his bird, and if the same is lost, he at least expects to receive compensation somewhat approximate to its value; but he is sadly misled.

The second rate is the company's risk rate, and under this the bird travels at the company's risk; and should it be lost the owner will receive the full value of the bird. But to obtain this compensation something more must be paid than the ordinary charge. He must declare the value of his bird and pay at the rate of  $1\frac{1}{4}$  per cent. on the declared value. It is at once seen that this means a considerable amount. For instance, take a bird valued at £50. The charges for this would be 12s. 6d. for each journey—25s. return, irrespective of distance; so that it matters not whether the bird travels ten miles or one hundred miles—the charge will be just the same.

The question as to whether these conditions are just and reasonable has, of course, arisen in very many instances. Necessarily it has to be determined according to the circumstances of each particular case in which it arises. There is a very recent decision on the subject of what is a reasonable and just condition, and we ought to say something about it here. The case arose out of the carriage of a valuable dog and the loss by burning, whilst on the journey, of that dog. In this the owner of the dog sent the dog subject to the conditions under the first rate we mentioned—namely, owner's risk; which, in the case of dogs, limits the liability of the company to £2. He paid 4s. for the carriage of the dog, but did not make a declaration as to its value, which was £300. The hamper in which the dog was sent was placed in the parcels office for the night. Through the carelessness of the company's servants the hamper took fire, and the dog was burnt to death. At the trial the company admitted their negligence and also the value of the dog, but contended that they were only liable for £2, which sum they paid into court. The question for the Court was whether the condition imposing  $1\frac{1}{4}$  per cent. on the value of the dog was just and reasonable. Mr. Justice Walton, before whom the case was tried, was of the opinion that the defendants had not shown that the rate of  $1\frac{1}{4}$  per cent. was "just and reasonable" within the meaning of Sec. 7 of the Railway and Canal Traffic Act, 1854. He therefore gave judgment for the plaintiff for £300. The defendants appealed against this decision, and

the Court of Appeal overruled Mr. Justice Walton's decision, and held that the condition was just and reasonable.

It was pointed out in this case that the fare for a first-class passenger from Neath, the station from which the dog was dispatched, to Chesterfield, its destination, was £1 8s. 5d., and the ordinary third-class fare was 15s. 6d. So that it comes to this, that a third-class passenger pays 15s. 6d. for being conveyed this distance, the company taking the risk of his meeting with an accident and having to pay him anything from £100 to £2,000 damages, whereas if you send your dog, valued at £300, you must pay £3 15s. in order to secure its full value if lost. This surely is a very unjust and absurd anomaly, because, taking into account the way in which valuable dogs to-day are accommodated for a journey, there cannot be half the risk attaching to them that there is to a human being, and of course the same may be said of exhibition poultry.

There is still the third alternative rate with which we have not yet dealt. This is a special low rate; the company agreeing to take the goods at a lower rate than usual on condition that they shall not be liable to any extent, should the goods be lost or damaged. That is to say, the birds are carried entirely at the owner's risk, the company being liable only in the case of *wilful* misconduct of their servants. As to what is wilful misconduct, we cannot do better than refer to the words of Lord Justice Cotton in deciding a case on this very condition. He said: "Wilful misconduct is something entirely different from negligence, and far beyond it, whether the negligence be culpable, or gross, or howsoever denominated. There must be the doing of something which the person doing it knows well will cause risk or injury, or the doing of an unusual thing with reference to the matter in hand, either in spite of warning or without care, regardless whether it will or will not cause injury to the goods carried or other subject matter of the transaction." So, in order to establish wilful misconduct, the owner might be in considerable difficulty from the fact that it would be hard to produce satisfactory evidence of it.

Everyone knows, and the railway companies know, that their servants are very often negligent and careless of the way in which they handle live stock; it is therefore not to be wondered at that the companies always prefer to carry birds at owner's risk rather than at their own risk, because they realise that the most they will have to pay will be 5s. a bird. We therefore think that every poultry-keeper will agree, whether he be a holder of Railway Stock or not, that the charges for the carriage of poultry by rail are out of all proportion to the risks incurred.



## WHO'S WHO IN THE POULTRY WORLD.

### MISS MARTHA BROWN.

IN our Educational section we publish some photographs of the Lancashire County Council Farm, at which Miss Martha Brown has for some time past been lecturer and chief instructor in poultry-keeping. Beginning as an instructor in dairy-farming, she soon realised that if utility poultry was well managed it could be satisfactorily combined with retail dairying ; and, having



MISS MARTHA BROWN.

already been trained in poultry work at the Reading College, she proceeded to add to her knowledge of the subject by spending a considerable time on practical poultry farms. The result was that when the Lancashire County Council decided to make a permanent poultry-school she was asked to undertake the management,

and train resident-students, also to give public lectures on the subject in various parts of the county during the winter evenings ; these lectures have always been well attended. During the nine years the poultry-school has been established Miss Brown has developed the department in various directions, the educational value of her efforts being shown by the increased number of poultry that are now profitably kept upon the farms in the county. The trussing competitions she has worked up in connection with the Royal Lancashire Show all help to bring the work before the public. Those making application through the Advisory Board of the Utility Poultry Club have benefited by her assistance.

When the second National Poultry Conference was held at Reading in 1907 she took a prominent part in the proceedings.

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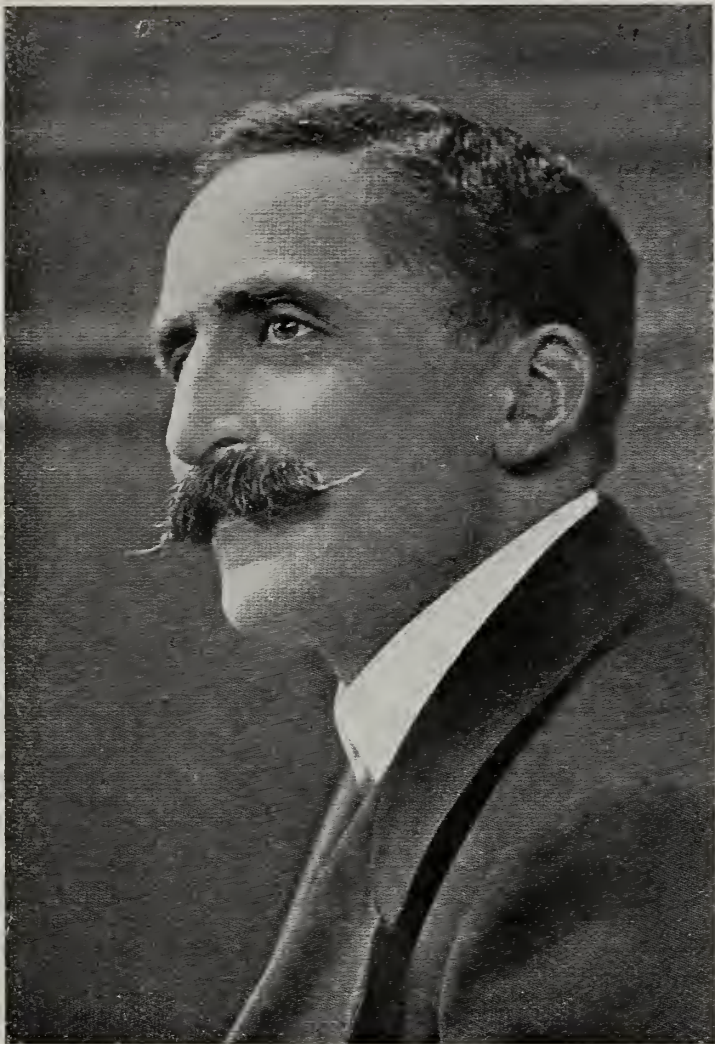
### MR. ARTHUR C. GILBERT.

IT is not many months since the Swanley Poultry Farm was described in the ILLUSTRATED POULTRY RECORD and some attempt made to describe its energetic and successful owner. To supplement what was then written by including Mr. Gilbert in our "Who's Who" is at once a duty and a pleasure. Certainly no fancier of the present day has a better right to figure in our gallery ; as judge and exhibitor he is among the most prominent of poultry notabilities ; as a breeder of exhibition Orpingtons, particularly Black Orpingtons, he has few rivals ; as the compiler and writer of the Orpington Duck standards, and as Secretary of the Orpington Duck Club he has done much to advance the popularity and prosperity of this breed of ducks. And did he not, in conjunction with Mr. W. H. Cook, add one more name to the Orpington fowl family, the now well-known Cuckoo Orpington ?

The object of the "Who's Who" is to give facts rather than record impressions of personalities, and it is therefore inopportune to say more than that we are more than glad to reckon him among our personal acquaintances. To this we may add that it does not take many minutes' conversation with him to find out that he knows the world as well as the poultry world. In his earlier days he travelled a great deal, chiefly for hunting and mining ; he has circled the globe five times ; and the impress of travel is stamped upon him, revealing itself in knowledge and catholic sympathies. To tell poultry fanciers what position he holds in the show world is



unnecessary, but for the less well-informed it may be mentioned that he is a life member, and on the Committee of, the Poultry Club, and club judge to all the Orpington Clubs. Abroad, he is enrolled in the



MR. ARTHUR C. GILBERT.

American and German Poultry Clubs, and in the Société Nationale d'Aviculture de France, and the Société des Aviculteurs Français. Neither does this convey anything like the total extent of his poultry interests, as a reference to the membership rolls of many other specialist clubs would easily prove.

### MR. R. HOUWINK.

MR. R. HOUWINK, of Meppel, is one of the best known leaders and writers among poultry fanciers in Holland. In the years from 1850 to 1900 many foreign breeds of poultry were introduced into Holland, such as Cochin Chinas, Brahmas, Langshans,

and Italian poultry, later better known as Leghorns, and as a consequence the interest in native Dutch poultry disappeared, and with it the breeds also. As a matter of course, the new breeds deteriorated in many ways through their inability to adapt themselves to their new surroundings. It was Mr. Houwink who came to the rescue. He said: "The breed that is to be of practical use to the farmer is the product of his own country," pointing out that it was necessary to return to the cultivation of the earlier Dutch sorts of poultry. He obtained the concurrence of many others and then

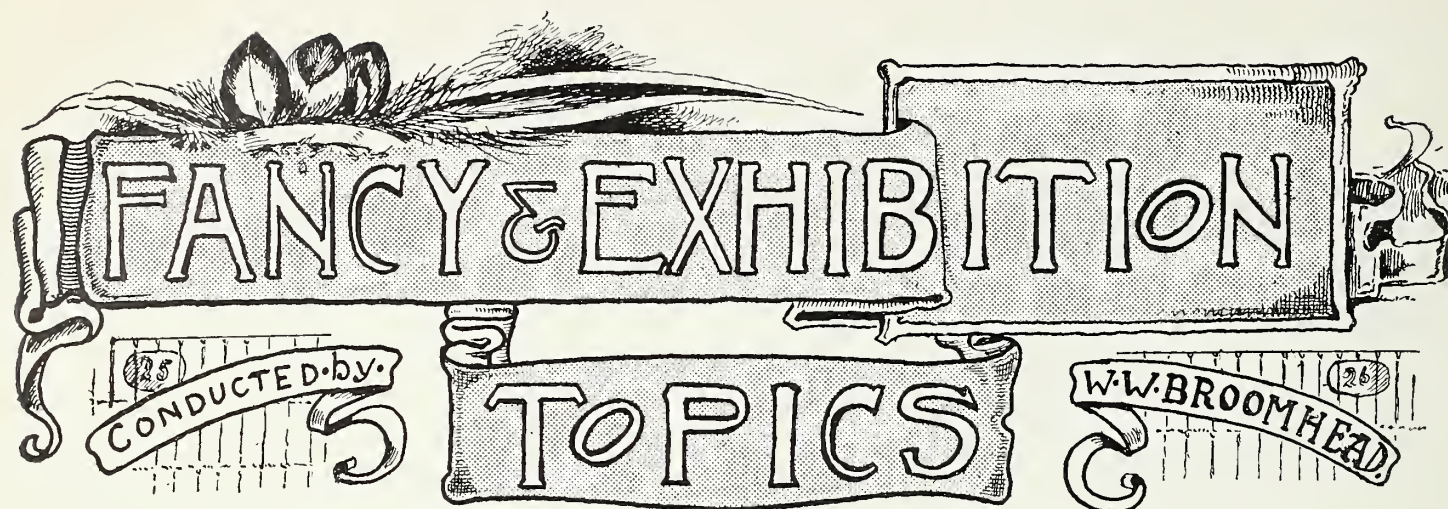


MR. R. HOUWINK.

formed, together with Mr. O. Repelins, the Dutch Poultry Club, a society for the improvement of the breeds of Dutch poultry, which enjoys an increasing popularity, being one of the leading societies in Holland.

To Mr. Houwink, therefore, belongs the credit of having restored, within a period of five or six years, the previous form and colour to the pure Dutch poultry by his careful and scientific breeding. He certainly deserves the gratitude and appreciation of many Dutch breeders for his efforts.





### "Read the Rules."

It appears to be a common practice, in these days of innumerable shows, for those fanciers who are in the habit of making entries at exhibitions not to read the rules which govern each particular undertaking, and two instances which came under my observation quite recently at fairly important poultry shows go far to prove this statement. In the one birds of the year were exhibited with adults, while in the other at least one fancier who entered his chickens in the adult classes withheld his exhibits; yet in each case it was a mistake. True, many events nowadays are held under Poultry Club rules, as was the case in both of these under discussion. But since that set of rules does not, nay, cannot, embody every point which may arise at a show, it is not in itself sufficient. Hence it is almost imperative that each society desirous of holding a show, even when under Poultry Club rules, must frame its own rules; most schedules contain a request that the regulations should be read ere entries are made. Nevertheless, at both of the exhibitions I have in mind the instances were governed solely by the conditions set forth in the Poultry Club rules.

### Exhibiting Chickens With Adults.

At the first show there was an intimation in the schedule that "birds bred in 1909 can compete in all classes, except in varieties for which a chicken class is provided." This to most exhibitors would be clear enough. Six classes were provided for adult Orpingtons and one for Orpington any variety hatched in 1909, cockerel or pullet. Yet in the two classes for Buff cocks (6) and Buff hens (9) three of the former were cockerels and five of the latter were pullets. A similar thing occurred in Wyandottes, although here there might have been an excuse. The classification read: Silver cock or hen; Gold cock or hen; White cock, hen, cockerel, pullet; Black cock, hen; Partridge cock or hen, cockerel or pullet bred in 1909; any other colour cockerel or pullet bred in 1909. Six of the eight Silvers, three of the eight Golds, and three of the seven Blacks were birds of the year. Consequently in the five classes the young birds were not judged. It was most unfortu-

nate, since in almost every case the "chickens" were quite representative specimens, and would doubtless have stood a good chance of being noticed.

### The Poultry Club Rule.

It may be as well to quote here the Poultry Club rule which refers to this matter. It is part of show rule No. 14, and reads: ". . . Cockerels and pullets shall not be eligible to compete in cock and hen classes if young bird classes are provided, unless the contrary be stated in the schedule." Nothing to the contrary was stated in the rules formed by the society under whose auspices the event was held, and the only reference to the matter was the quotation which I have already given. As I have said, it was very unfortunate; and since no notice was placed on the pens, stating why the birds had not gained prizes or honour cards, it caused much comment among those fanciers who attended the show. I may perhaps be allowed to add that the judge was quite willing to adjudicate on the birds as they were penned; but it was pointed out to him that the event was under Poultry Club rules, and those rules had to be followed.

### Where Chickens Were Eligible.

At the other show a somewhat similar classification was given. Classes were provided for Orpingtons, Black cock, hen; Buff cock, hen; White cock, hen; any variety cockerel, pullet; any other colour, cock or hen. And at the end of the section, which contained several classes for other breeds and varieties, there was a class for cockerels bred in 1909 and another for pullets bred in 1909. In this case a well-known fancier entered some young birds in the classes specially set aside for Black and Buff Orpingtons, but considering, after he had made his entries, that he had wrongly entered them, he withheld his exhibits. Here, in my opinion, was a clear case of misunderstanding the rules specially framed by the Fanciers' Society, since it is distinctly stated in them that "cock shall mean cock or cockerel, hen shall mean hen or pullet." And I believe I am correct in saying that in each of these four particular classes the first prizes went to birds of the year. The matter was brought up at last month's meeting of the Poultry Club Council, when it



was decided that the show committee was correct in allowing young birds to compete in the classes, since the Society's own rule made provision for it—"the contrary was stated in the schedule."

### Other Rules.

But this question of chickens being allowed to compete in certain classes is not the only one which makes it imperative for the exhibitor to read carefully the regulations of the Society as well as the Poultry Club rules before entering his birds. The Poultry Club rules themselves require properly studying; but more, perhaps, of this in a later issue of the RECORD. Some years since, when the anti-dubbing crusade was in full swing—how it has fizzled out of late!—certain societies which were supporting the movement continued to provide classes for Game Fowls. In most circumstances it was specified against each class that the birds were to be exhibited undubbed; but at one very important summer event no such specification was made, and the only reference to it was contained in the Poultry Club rule of the period that "the cutting in any way of the comb, the lobes, or wattles" was a fraudulent practice, and one that would lead to disqualification. At that show a well-known Game fancier, doubtless entirely overlooking the item in the Poultry Club rules, entered a team of Game; and since the judge was "one of the old school," and was not opposed to dubbing, the birds were awarded prizes. On a protest being lodged, however, it was upheld, and although the birds were not disqualified the prize-moneys were withheld.

### Yes, Read the Rules.

I could give innumerable instances of a different nature to show that it is wiser to read the rules, but space forbids. I have made a collection of "peculiar regulations," some of which may even be classed under the head of "tricky," which have been published in connection with poultry shows, and which I know in many cases have never been read by those who have entered birds at the events. Some day I may put them in the form of an article. They will doubtless prove interesting, and they may point a moral.

## WHITE WYANDOTTE CLUB.

MEMBERS are informed that a committee meeting will be held at the forthcoming Dairy Show, whereat many important motions and resolutions will be considered and concisely prepared in readiness for the Annual General Meeting. There is a great deal of business to be done, and members will oblige by sending particulars of any matter they wish brought forward to the Hon. Secretary at once. The Club year begins on October 1 next, and intending new members should join at once. Matters at present up for discussion include: Question of issuing Club rings; Alteration of certain rules; Framing set of conditions governing Club shows; Shall offices of Hon. Treasurer and Hon. Secretary be combined? Opinions of all members invited.

J. STEPHEN HICKS, Hon. Sec.

## SHOULD JUDGES BE LICENSED?

### SOME PROS AND CONS.

By W. M. ELKINGTON.

THIS is the latest riddle the Poultry Club has set itself to solve, and there can be no doubt that such a many-sided question will tax the deliberative talents of that assembly to the utmost. According to a statement made at the August meeting of the Council, a scheme was to be submitted at the meeting held on September 10, and as I am writing before that date I have no means of knowing on what lines the scheme has been propounded. As, however, it is unlikely that an individual suggestion will be adopted straightway, and as the Council will no doubt wish to give their members, and even the judges themselves, an opportunity of considering the matter, I venture to offer an opinion in the hope that others interested in this momentous question will state their views.

From the sentimental point of view, I think it will be generally agreed that the licensing of judges would be a decided advantage. The Poultry Club would have more control over the judges, and no man with a tarnished record, or even under suspicion, would be permitted to adjudicate at shows under Club rules. This would appear to be a great advantage, though when you come to look closely into it, it means very little, since a man with a bad record has a poor chance of getting engagements as it is. However, the principle is right, so we may regard the licensing of judges, at any rate from this point of view, as beneficial to the community at large.

The main point to be considered, however, is the basis upon which the licensing is to be arranged, and as we are left quite in the dark at present we can only surmise that the Poultry Club will adopt either the narrow or the broad basis. By the narrow basis I mean licensing judges of good character without regard to qualifications, and by the broad basis I mean the distribution of licences strictly according to talent and qualifications. In the first case the problem would be greatly simplified. It would, in fact, be the easiest thing in the world to grant a certificate to every man who desired to hold a judge's licence, so long as there was nothing against him, and it would also be a simple matter to make every licensed judge answer any charge that might be made against him, and in default cancel his license. If this is the extent of the proposition to be placed before the Poultry Club there need be no more said about it. The exhibiting public would be satisfied, the judges would not object, there would be another law in the Poultry Club calendar, and, to all intents and purposes, the Fancy would be very much in the same position as it was before. There would be the same amount of mutual suspicion, the same amount of grumbling from disappointed exhibitors, and the same difference of opinion between judges.

But I have an idea that the popular notion is that licensing should be arranged on a broader basis. I



believe that a great many fanciers hold to the opinion that judges should be licensed according to their abilities, and if this is the principle upon which the Poultry Club intends to legislate, the question at once becomes complicated and contentious. In the first place, who is to decide what are the qualifications and abilities of an applicant for a license? Not the Poultry Club Council, of course; for with all respect to that worthy band of enthusiasts, it would be impossible to regard them, individually or collectively, as qualified to express an opinion upon the abilities of would-be judges—men whose work, in many cases, they have never seen. We may dismiss such a theory, for the Poultry Club Council are too level-headed to usurp such a task.

Then who should decide? I have heard it suggested that the matter should be referred to the specialist clubs. All well and good, but the specialist clubs have their own club judges, and these gentlemen would, of course, be approved. But what about the others? It is nonsensical to imagine that because a man does not happen to be a club judge for a particular variety he is necessarily unqualified to adjudicate upon it. That idea is far too prevalent already, and it would be nothing short of a calamity if the Poultry Club fostered it by allocating the duty of licensing judges to the specialist clubs. Some of the very best and most popular all-round judges of the present day do not belong to more than half a dozen clubs, and naturally they are not club judges of this variety and that, though they may daily prove themselves more capable than many that are. Would they have to go unlicensed, or would they be compelled to join the clubs and wait until they were elected to the select band of specialists? In this connection we may remember that very few clubs place no limit upon the number of their club judges. In some clubs there are eight, in some six, and in others only four, and if you are not fortunate enough to gain a place you can't be a club judge, and, consequently, I presume, you can't be licensed. Then, again, whilst many clubs elect their judges by ballot of the members, in other cases the duty of selection is left to the committee, or perhaps a general meeting, so that, in any case, a clique can, if they please, make or mar the career of the most able man living and secure the success of the most arrant humbug. All these things would have to be carefully considered before the Council relegated the duty of licensing judges to the specialist clubs, and it is obvious that if such a course were decided upon the inequalities and stupidities of the present system would have to be remedied.

Of course, I am considering particularly the cases of men who might apply for licenses as all-round judges, for some little time ago I read a suggestion to the effect that men should be licensed only for the breeds upon which they are recognised as specialists. If this principle were adopted it would be a great injustice to, and inflict a hardship upon, a number of well-known judges who officiate regularly at our provincial shows. Take the case, for instance, of a man who was a specialist on Orpingtons. He would, of course, be recognised and licensed by the

Orpington clubs. But how would he get on with the other breeds? Leghorns, for instance. He might know a Leghorn as well as any man, without being a specialist. He might be adjudicating upon Leghorns as an all-round judge week after week, provincial shows being glad to engage him and the rank and file of exhibitors ready to show under him. But because he is not a Leghorn specialist, and a few of the leading Leghorn breeders choose to regard him as an outsider (though they may never have shown under him or seen him judge), is his license to be withheld, and is he to go about in future branded as a man who can judge Orpingtons, but cannot be trusted to take anything else? If that is so, I believe a large number of judges will strenuously oppose the suggestion. They are not likely to submit to indignities that may endanger their careers, and I do not think for one moment that the Poultry Club would countenance any such thing, for the object of licensing judges, I presume, would be to recognise the abilities of qualified men, and if shows are willing to engage them year after year and the rank and file are satisfied to show under them, how can it be said that they are unqualified? Why not leave the matter to the public, who are, after all, the best judges? If a man is capable he will get engagements and people will show under him; if he is not capable the public will fight shy of him and the shows will be chary of engaging him. The one exception is in the case of men who obtain engagements because they are prepared to work for nothing; and if the Poultry Club would fix a minimum fee, below which no licensed judge could quote, it would solve the problem of the cheap and incapable, and be a boon to the better-class judges at the same time, besides protecting the exhibiting public.

This question of deciding who are capable and worthy to be licensed and who are not is, indeed, the stumbling-block to the whole proposition. It would have the effect of shutting out the rising generation, who would never have a fair opportunity to prove their ability, and it would enable the influential and the wire-pullers to obtain advantages over others. We must not forget that feeling often runs high in the Fancy. We often hear well-known exhibitors remarking of equally well-known judges that they (the judges) shall never handle a feather of theirs (the exhibitors). Even the best of judges may make mistakes, and even the most conscientious of exhibitors may be unduly prejudiced. Obviously, it would be unfair for one or more of these dissatisfied exhibitors to have the power to withhold a license from a deserving judge, and yet whilst the leading exhibitors have so much influence this might occur, and undoubtedly does occur in the selection of judges for various shows.

The whole question is beset with difficulties, and if the Poultry Club undertakes to regulate the licensing of judges on the broader basis, or according to qualifications, these and many other points will have to be considered. At any rate, it is a matter of supreme interest to judges and to exhibitors, and it deserves to be carefully deliberated before any decision is arrived at.



Personally, I fail to see how the problem can be satisfactorily dealt with. Perhaps someone else can suggest a solution.

## THE CROAD LANGSHAN.

AT the present time the exhibition Langshan is divided into two distinct types, the Croad and the Modern, although the latter is known simply as the Langshan. It is a long story to tell why these two types should be different, but, put into a nutshell, it is that the Croad Langshan is supposed to have been produced solely from the original fowls discovered in the Far East, while the other was "made" by English fanciers by crossing other breeds with it. How much truth there is in it, need not trouble us now. The two types are distinct, and must be dealt with as such.

The Croad Langshan is one of the best whole-coloured breeds exhibited or bred to fancy points. It also excels in



A CELEBRATED CROAD LANGSHAN.  
Belonging to Mr. R. O. Ridley. [Copyright.]

utility properties, and both as a table-fowl of the finest quality and a layer of big, rich brown-shelled eggs it wants some beating. The flesh is beautifully white, and, when the fowl has been well fed, plentiful on the most desirable parts. The only objection that can be taken to the fowl from an edible point is its feathered shanks; but since it is possible to dress and cook a fowl minus its shanks, it is a very minor defect, if defect at all.

There is only one variety of the Croad Langshan—viz., a black. This black is covered with a beetle-green sheen, lustrous and glossy, without any purple or blue tinge, and it goes right over the plumage from the fowl's head to the tip of its tail. The most brilliant colouring is generally on the secondary wing feathers, then on the sickles, hackles, and back, with the breast a shade dull

and the thighs and fluff duller still. But every feather, in a well-bred specimen is of one colour, green-black, simply varying in lustre according to its position on the body.

One strong point in favour of the Croad Langshan is that single mating will suffice to produce good specimens of both sexes; that is, it is not necessary to mate some fowls especially for the production of exhibition cockerels and others to get pullets fit to show.

Type must ever be a prominent feature in the Croad Langshan, but other important points are profuse neck and saddle hackles and a full, flowing tail in the male birds, and fairly soft feathering in the females, avoiding any inclination to hard or Game plumage.

## MEN AND MATTERS.

By W. W. BROOMHEAD.

*The Sliding Scale—Recent Elections—A Wyandotte Club "Meet"—The Game Show—A Well-Known Stud of Dorkings—The Professional Exhibitor—Light Sussex Only—Rhode Island Reds—Irish Shows.*

### THE SLIDING SCALE.

AT an Agricultural Society's exhibition, which was held during the present season in the postal district of Sheffield, the committee ran the poultry section on what is commonly known as the sliding scale system of awarding the prizes; but the response was such as to lead one to conclude that most fanciers must have overlooked it. The entry fee was fixed at 1s. 6d. a pen, and the scale of prizes, arranged so that as far as possible no classes should be cancelled or amalgamated, was certainly one of the most generous so far offered. It was as follows: For one entry a class, 2s. 6d. cash and first prize; two entries, 5s. and first; three entries, 5s. and 2s. 6d. as first and second prizes; four entries, 6s., 4s., and 2s. as first, second, and third; five entries, 8s., 5s., and 2s. 6d.; six to twelve entries, 10s., 5s., and 2s. 6d.; thirteen to eighteen entries, 10s., 5s., 3s., and 2s. 6d.; and for over eighteen entries, 12s. first, 6s. second, 4s. third, 3s. fourth, and 2s. fifth prizes. But the entries throughout the poultry classes averaged as low as four. Glancing at the scale of prizes, it will be seen that in the case of classes with less than a dozen entries the entry-fees would not pay for the prize-money, which was guaranteed. It is generally admitted that at a poultry show offering 40 classes, as occurred at the event in question, an average entry of 11, particularly during the summer months, is by no means a bad one—in fact, it is seldom exceeded at even the most important fixtures in the 'tween season. It is evident, therefore, that the committee stood to lose money on the entry-fees; and out of other funds the executive was prepared to meet judges' fees, advertising, printing, cost of penning and feeding the birds, and the many other expenses which are inevitable to "run" a show. On the face of it one might consider it as further proof that the sliding scale is not popular among exhibitors; but it must not be forgotten that small entries have been the order of the day at poultry shows this season, and the



exhibition in question was not altogether free of "clashing" with other shows. It was, however, a sporting offer, and the pity is that the response was not greater.

#### RECENT ELECTIONS.

It is seldom that members of specialist poultry clubs take the interest they should do in their annual elections. As a rule a 50 per cent. return is considered very good, but there is no reason why it should not be much greater. Certainly in most specialist clubs there are members who do no more good than pay their subscriptions, and when it comes to elections they leave them to others. One hundred and three voting papers were sent out in connection with the recent election of a judge for the club show of the Partridge Wyandotte Club; sixty-three were returned to the scrutineer, and Mr. John Wharton was elected by twenty-three members. The return for the Plymouth Rock Club's election of club judges was eighty-one, one hundred and fifty forms being sent out, and the result was that Mr. J. Wilkinson received top votes (fifteen) as judge of the Barred varieties, and Mr. J. Bateman was highest for Buffs, Whites, and Blacks with a similar number. At the recent election of the Gold and Silver-laced Wyandotte Club forty papers were returned, and of these twenty-three recorded votes for Mr. W. L. Horbury as president. In connection with this latter election seventeen members were voted as club judges.

#### A WYANDOTTE CLUB "MEET."

There is to be a fairly representative meet of Wyandotte clubs at Cambridge early in December—the White, the Black, the Partridge, and the Columbian having decided to hold their annual shows in connection with the Cambridge Ornithological Society's open event this year. The venue is in every way suitable, being very spacious and affording excellent light, while there is no better show organiser than Mr. Walter Driver, the secretary of the local society. The classification at the club events will be on the usual generous scale, the Partridge classes being the most numerous. The judges appointed for these sections are Mr. C. N. Goode, who will take Whites and Blacks, Mr. John Wharton, Partridges, and Mr. Hubert Wright, Columbians. The Yorkshire element is well to the front, and there should be a good display forward.

#### THE GAME SHOW.

One of the most important specialist poultry exhibitions of the year is the Kendal Game Show, which comes off this month. The classification is confined to Game Fowls proper, and of the sixty classes offered there are a dozen for Old English Game, ten for modern Game, sixteen for Old English Game Bantams, and the remainder for Modern Game Bantams. Numerous cups and specials are offered for competition in addition to prize-money, and not the least important this year will be the new £20 challenge cup offered by Mr. Dan Clayton for the best Brown-Red Game Bantam in the show. It will be recollected by those who are interested

in Game Fowls and Bantams that Mr. Clayton at last year's event won outright the two ten-guinea "Bottomley" challenge cups. In offering his valuable trophy for competition at the Kendal Exhibition the donor informs the executive of the event that he will not compete for the cup at any time.

#### A WELL-KNOWN STUD OF DORKINGS.

It will be news to some readers to hear that Mr. Herbert Reeves, the well-known Dorking breeder and exhibitor, has retired from the Fancy. Mr. A. C. Major, another famous exhibitor of the grand old English breed, has purchased the whole of his stock, and in addition has engaged Rufus Goodfellow to manage his poultry. Goodfellow is well known at the southern shows, and it is rarely he took a team out without the birds getting a good share of the prizes. He had sole charge of the Dorkings at Emsworth for fifteen years, and during that period the birds he exhibited for his employer won nearly two thousand prizes. He thoroughly understands the breeding of prize stock, and has bred many a champion, his best, perhaps, being a dark Dorking pullet which was reared in 1902. This bird, as a two-year-old, won the trophy at the International Show for the best Dorking in the exhibition, as well as the five-guinea cup for the best hen or pullet. She was an especially fine specimen, and was claimed at the show for £50, a record price for a hen.

#### THE PROFESSIONAL EXHIBITOR.

Much has been said of the way in which certain teamsters swamp the small shows and carry off most of the prizes, and there is a lot of truth in the assertion. The best example of this that has so far come under my notice occurred at a Welsh show this summer. Nineteen open classes were catalogued for fowls, bantams, and ducks, and the entry numbered seventy-one. It was poor, certainly, but of that total almost fifty were made by three well-known fanciers. One secured ten first prizes, six seconds, and two thirds; another's wins were cup for best male bird in the show, three first prizes, a second, and a third; while the third big exhibitor's team gained a challenge cup, a medal, four first prizes, and four seconds. One of the trio is unquestionably the largest exhibitor of fancy poultry in the world, and no man knows better than he how to pen a fowl to show to advantage. He breeds poultry on an extensive scale, and he never hesitates to buy fowls which are likely to give a good account of themselves in the exhibition arena. Quite recently he broke the record by winning over a hundred prizes and specials in one week. Commenting on that achievement, a contemporary says: "It is most cheering to be able to chronicle these successes. . . . They stimulate others to go ahead and cheer the beginner in the work he has undertaken." I wonder how many "others" and beginners will digest that sop. There are few, if any, at present in the poultry fancy who are so raw as to imagine they can go and do likewise.



## LIGHT SUSSEX ONLY.

One of the largest breeders of Light Sussex Fowls of to-day is Mrs. Lilly A. Booth, of the Poultry Farm, Framfield, Sussex; and during the present season over 2,000 chickens of that particular variety were reared by her. It is the only breed now kept by Mrs. Booth. Last year she had White Leghorns and White Wyandottes, but since the Light Sussex laid 50 per cent. more eggs than either of the others, all being fed and treated alike, the whites were sold off. It seems a pity that such an excellent all-round fowl should be so little known, as it unquestionably is outside its own county; but it is to be hoped that the Sussex Poultry Club will see to it in

The breed is not, it may be mentioned, a new one; it has been going for many years, although very few specimens of it have been seen in this country, and some of us are wondering where its popularity over here comes in. It is purely an American breed, "discovered" in Rhode Island, the smallest of the United States of America; and apparently it holds the same position in America that the Sussex Fowl does in England—to wit, that of a purely utility fowl which has not until recent years been taken in hand by the fancier. Whether the Red Dorking had anything to do with the breed in its early days I am not in a position to say, but I do know that until three or four years since, when the Red



A PEN OF WHITE WYANDOTTES.

[Copyright.]

future that classes are put on for the breed at shows in the Midlands and North, as well as in the South-Eastern counties. If provision were made for the breed, I feel sure that there would be good and paying entries, since many breeders would be very willing to send birds to the events. At present the only place for them in most shows is in the "Any Other Variety" classes, hence it cannot be expected that such classes prove a draw for a breed so largely kept as is the Sussex Fowl. That there is a good demand is beyond question. "Although this is our first season," writes Mrs. Booth, "we have sent eggs and chickens to many parts of England, and even to the North of Scotland."

## RHODE ISLAND REDS.

I see that "in consequence of the growth in popularity of Rhode Island Reds, it is proposed to form a Club, to further the interests of the breed by providing classes for 'Reds' at shows." Mr. George Scott, of the Windmill, Pudsey, Yorkshire, has the matter in hand.

Dorking became almost extinct, specimens of the old English breed were regularly sent from the Mother Country to the New York district. I do not question that the Rhode Island Red is a great business fowl, but it is doubtful if it will make much headway in England. We already have an excellent business fowl and a good fancy variety in the Red Sussex, and one which possesses the desired white shanks and skin for the best table fowls over here.

## IRISH SHOWS.

One of the most noticeable features in the poultry sections of the early Irish shows is that the vast majority of the first prizes go to exhibitors not residing in Ireland, most of them being secured by a few teamsters from this side. Not many Irish fanciers, however, keep birds up expressly for show purposes in the spring, and what specimens they do exhibit are generally taken direct out of the breeding-pens. Nevertheless, if the Irish events are good enough to be



patronised by exhibitors from England and Scotland, who often accompany their birds, they should prove a draw for the home fanciers; and since at most of the poultry shows in Ireland the prize-money is good, it should be the aim of Irish exhibitors always to have a few birds on hand for exhibition purposes. If this were done I do not doubt for a moment that every encouragement would be given to them by the show executives, and it would not take long to have the whole of the exhibitions, or the chief of them, in Ireland confined to Irish exhibitors.

### SOME RECENT SHOWS.

ALTHOUGH the weather has been somewhat more propitious of late, it cannot be said that on the whole it has been favourable for outdoor amusements. At times it has been so hot that confinement to a show-pen under canvas has resulted in premature moulting in many cases. At one or two events the ancient and decidedly risky plan of staging the birds in the open is still followed, but, fortunately, bad weather did not prevail on those occasions. The cry is still that entries are short, and the method of withholding prizes solely on that account has been more frequently resorted to this season than formerly. "Gates" have not been at all satisfactory at many events, and I shall not be surprised if 1909 sees the end of more than one show. It is perhaps peculiar, however, that several first events have taken place this season.

Among the more important fixtures which have been held since my last month's notes are Sandy and Penistone. The former event is always a good excuse for an outing for thousands of residents within the county, and I question if anything short of an earthquake would prevent the Bedford folk from spending a day at this popular show. There was a good entry of poultry, and many excellent young birds were penned. The Poultry Club's Ten-Guinea Challenge Cups for the best male bird and the best female were awarded to Mr. Horbury's White Plymouth Rock cockerel and Mr. R. Anthony's Black Orpington pullet, the latter bird, unquestionably one of the best of her kind ever exhibited, also winning the silver medal for the best fowl in the show. The Penistone event is one of the best shows in the North, and possibly the best for Bantams. There was a splendid entry, and the special for the best of the 166 Bantams was secured by Mr. J. F. Entwisle's grand little Black Pekin hen. The Airedale Agricultural Society's Show at Bingley was one of ten poultry exhibitions held at the beginning of the month. There was a good turnout of Wyandottes, Hamburgs, and Leghorns, but the four classes for Plymouth Rocks were cancelled. Bantams, too, were a strong feature, and a Black-Red Game cockerel exhibited by Mr. O. F. Bates carried off the special for the best specimen in his section. At Clowne, Derbyshire, on the same day, competition in the large poultry classes was confined to chickens of the year, and some good quality was forward, Orpingtons, Wyandottes and Leghorns being especially strong, while Bantams were a show in

themselves. At this event the cup for the best fowl in the show went to Messrs. Heys Bros.' Indian Game cockerel, while six of the seven first prizes for Bantams were awarded to birds shown by the same exhibitors.

The Adlington and East Cheshire Agricultural Society's Show at Stockport was a success; and although the number of exhibits in the poultry section was not so big as it has been, it was one of the best shows for quality ever held by the Society. At Dore (Derbyshire) Show on the same day, Mr. J. F. Entwisle staged a quartette of Bantams and won four first prizes with a Birchen Game cockerel, a Pile Game hen, and a pair of charming White Pekins. The Craven Agricultural Society and Farmers' Club held its fifty-fifth annual exhibition at Skipton early last month, and in the poultry section the entry proved a record, the total being not far short of four hundred. In the Modern Game and Game Bantam classes no cards were given beyond the three prizes, not an unusual proceeding among Game judges, but the action was strongly commented on by exhibitors at the event. Here Mr. C. Pickles's Silver Spangled Hamburg cockerel and Mr. T. C. Heath's Black Orpington pullet gained the specials for the best birds in the show. Competition at the Mid-Cheshire Farmers' Association's Show at Knutsford was limited to a twenty-mile radius, but the Poultry Club specials attracted some of the best exhibits in the district, while there were some good birds entered for the Cheshire Cup. The members' medal for the best fowl in the show was awarded to a good Barred Plymouth Rock pullet, shown by Mr. Worthington, while the Poultry Club medal and cup went to one of Mr. Lewis's famous Black Orpingtons.

Old English Game and Bantams were the chief feature of the poultry section at Crawshawbooth Show, and the special for the best cock at the event went to a Black-Red exhibited by Mr. Aspinall. At Bentham, which is one of the oldest of the Yorkshire fixtures, there was a fine display of Orpingtons, Wyandottes, Plymouth Rocks, and Leghorns, and in two classes for Barred Plymouth Rock cockerels and pullets there were thirty-one entries. Waterfowl formed one of the chief attractions at the Derbyshire Agricultural Society's Show on the 7th and 8th ult., there being four classes for geese with thirty-four entries, and six for ducks with over fifty entries; Redcaps were also forward in nice numbers, and there was a fine entry of Bantams, the total for the five classes being about sixty.

Other important shows held last month were Okehampton, Heywood, Altrincham, Kilkenny, Haywards Heath, and Galgate. Seven specialist judges were engaged for Altrincham, which is possibly the biggest one-day event in the country, and the best classification was for Wyandottes, Leghorns, Orpingtons, Bantams, Waterfowl, and Turkeys. At Galgate eight classes were given for Orpingtons, ten for Plymouth Rocks (with two for Columbians), fourteen for Wyandottes, eight for Leghorns (including two for Blues), and fourteen for Bantams, and there were no fewer than sixteen selling classes. The chief event of the present month will be the Dairy, a brief *résumé* of which we hope to publish in our November issue.





### Cross-Breeding.

A cross-bred fowl is the product of a process of deliberate selection, whereas a mongrel is a nondescript combination of a series of haphazard matings. The economic value of the latter is entirely individual, and consequently very uncertain, but that of the former is more generally uniform, and advantageous or otherwise according to the circumstances. Although here and there a mongrel may be found that is capable of a considerable egg-yield, and despite the fact that many mongrel chickens make good table birds, the element of uncertainty is so great, and the number of "wasters" so large, that such stock must ultimately prove unprofitable. Cross-breeding, on the other hand, may be very useful for some purposes and under certain conditions, but it is by no means so generally desirable for the commercial producer as some would have him believe. Where it is considered desirable, there must be a definite understanding of the object in view, and of the best material to employ for its attainment; and the object may be more effectually and certainly attained by the crossing of stock that is good upon both sides, than by the unsatisfactory attempt to revive a degenerate stock by such means. The chief benefit of cross-breeding consists in the possibility of combining existing good qualities, plus the hardiness that is a common characteristic of cross-bred chickens; but provided the breeder is sufficiently experienced to form properly and maintain a pure-bred strain suited to his purpose, the possible advantages of crossing do not always outweigh the probable drawbacks. Breeds are crossed to increase prolificacy, to add to the size of eggs, or to improve their colour, and the same process is adopted to intensify table qualities, methods that are rather justifiable in particular cases than as a general rule. In egg-production the breeder is following a more direct line in the selection and rejection of strainmaking, which, although limitable, contains an element of certainty; and in table-poultry production, if we differentiate as between market and exhibition standards, there are strains of pure breeds sufficient for the former. The cross-bred fowl is at best an ephemeral production, whereas the pure-bred bird contains at least the possibility of fixity.

### Characteristics.

Extremes are seldom faultless in that they tend to the disregard of every point of view but that which is outermost at the moment. The main camps of the two great sections of breeders are at opposite poles, and the objective of the one is invisible to the other—but the axis is the same. If the true inwardness and outwardness of a breed does not appeal to all men equally it does not necessarily follow that antagonism must result. A breed is characterised as a whole, and not in regard to one quality only. The general characteristics cover the particular, whether of economic qualities or more æsthetic characters—the combination of the whole, and not any part alone, being typical of the breed, making due concession to varieties. That this broad aspect is often obscured is perhaps owing to the fact that a travesty of a breed is too often mistaken for the real thing. The naturalist defines "type" as that which combines best the characteristics of a group, and characteristics are too often narrowed to suit a particular purpose. For this fault the extremists are to blame, no matter what camp they occupy; and the practical breeder who ignores characteristic colour is as unnecessarily one-sided in his selection as the feather-breeder who takes no account of constitutional fitness. The preservation of breed demands some all-round approximation to the general characteristics of the variety or race possessing the particular qualities that distinguish it. Whilst the market producer would be ill-advised to allow such details as under-colour materially to influence his selection of breeding stock, there is no necessity to disregard absolutely the broad externals, which—in common with economic qualities—are characteristic of a breed. The value of pure breeds is being increasingly realised by commercial producers, and although their strains are developed along different lines from those travelled on the way to the show-pen—with some few exceptions—the marks of race may be sufficiently maintained to preserve distinction.

### The Winter Layers.

The birds that are best suited for the rapidly-approaching period of desired production are those that were



hatched some time in March or April, the usual coincident naming of these two months allowing sufficient latitude for the regulation of the hatching date relative to the rate of growth in the different breeds used for the purpose. Suitably-hatched birds are now entering upon the final stage immediately preceding the commencement of production, which, under normal conditions, will be expected towards the end of this month or the beginning of next; the actual date being largely dominated by the whole course of rearing, with its implied adaptation to the character of the season, and particularly by the treatment during the changing period at the opening of winter, which may be antedated for practical purposes. With the nip of approaching winter in the air, free running pullets require to be generously fed with warm mash in the morning, the mixture being composed of ground oats or barley meal, together with sharps and bran, mixed two or three times a week with liquor from the stock-pot, that indispensable culinary utensil of the poultry-keeper. Remembering the requirements of their age, the allowance of mash should be fairly satisfying; and the proportion may safely be larger than would be wise

in the case of hens reserved from the previous year. No midday meal should be necessary, but a sufficient quantity of grain in the evening is essential; and for fowls with a good range, oats should be given the preference, with wheat to provide the desirable change. Apart from feeding, the question of housing is the one most subject to divergent opinions; whilst reasonable freedom of range remains essential during autumn and winter, the conditions should not compel exposure or involve any inability to find shelter where instinct impels. In other words, there are possibilities between the extremes of close confinement and the freedom of neglect; and preservation of stamina must be preserved with such safe increase of prolificacy as is possible.

## BEGINNINGS.

By J. W. HURST.

WE hear from time to time of the successful men, whose poultry-production is a flourishing and important branch of farming, and in the chicken-fattening districts of the south-east we find those with whom extensive general farming has grown up around the fattening-coops, until the resultant combination represents a business with more than enough money in it to make the "living" which was the primary ambition of the original venture. Around such men and their establishments there often lingers the legend of small beginnings, but the distance of time generally obscures the details—

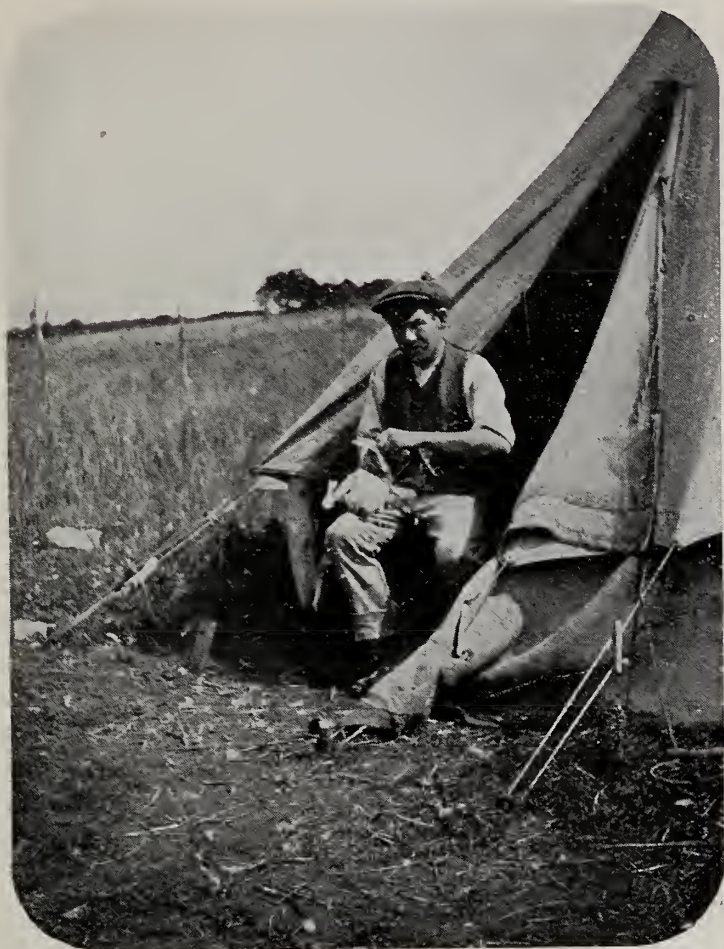


A BRUSHWOOD COMPOUND.

[Copyright.]

concerning which the ever constant stream of fresh beginners would fain gain some more definite information. It is no doubt an encouragement to them to learn that such and such a man maintains an output of, perhaps, 100 dozen fattened fowls per week; that his coops accommodate some 4,000 birds; that he buys three tons of ground oats a week; and other statistical details that convey the impression of a bank balance—whatever else they may fail to suggest to the receptive mind of the uninitiated. All that kind of thing is very well in its way, and such records are of general interest; but what we so often overlook are the beginnings of those who may or may not rival the results of those who commenced a generation earlier.





A PLUCKING TENT.

[Copyright.]

Such beginnings may often be too uninteresting or too insignificant to merit even passing notice, and the absence of record may be excused until some striking result prompts publication; but when the methods are in any important particulars original, and practical in nature, some reference is not only excusable, but in a measure necessary. During some recent peregrinations in East Sussex I came across a ten-acre holding upon which the beginnings of poultry-production were sufficiently novel to suggest the use of the camera and pen.

What struck me particularly in the instance under reference was the evidence of what may be described as a Colonial spirit in the character of the erections or structures; there was nothing in the nature of a typical English farm building, and whilst utility appeared to be sufficiently served with but small outlay, appearance certainly did not suffer. All this is in direct contradistinction to the dreams of beginnings that generally tinge all the waking thoughts of the would-be beginner, who looks to find a complete set of farm buildings—

in a perfect state of repair—upon any five- or ten-acre holding in the district of his choice. When the futility of this conception is, after many fruitless journeys, sufficiently impressed, the mind turns to building estimates with some amount of trepidation—remembering the limitations of capital, and its many other uses.

In this particular instance the holder of the ten acres has established himself upon the land, by the utilisation for the most part of such material as is cheaply available in a county of many shaws, and a great quantity of undergrowth; and with the accommodation afforded by such structures, as may be built with that which grows upon an average farm, the beginnings of a fattening establishment are in progress upon ten acres of rough grass-land that had gone out of cultivation.

The Kaffrarian-looking compound is an ingenious extension of the common Sussex use of brushwood, the thatched portion at the rear providing accommodation for fattening-coops under cover in addition to a cow byre, the central enclosure sheltering the outdoor coops, and the thatched front covering a sty for pigs and some sheep-pens. The whole of this composite structure is made of stakes and poles as regards its solid framework, whilst the walls are formed of tightly-packed brushwood, and thatch is used for roofing. Nothing could be more primitive, and yet few buildings could better serve the purpose—as beginnings; moreover, the stability is sufficient to outlast the commencing and critical period of such an enterprise. The advantages of such a method have therefore much to commend it to small-holding poultry-producers, who contemplate beginning operations in an open field; the initial outlay is restricted to a minimum, the permanence of the erections is sufficient to carry the producer well



AT THE BACK OF THE BRUSHWOOD COMPOUND. [Copyright.]



over the early stages of what is often an experimental production, as regards the individual, and if the latter, or his circumstances are found wanting, there is not much loss on "buildings."

The only other erections used in connection with these beginnings are a couple of bell tents—second-hand Army tents, such as may be purchased for about 35s. each—one of which is used for the plucking and preparation of the fowls for market and the other for mixing the food, &c. Some chicken and duck rearing is carried on, but to a very limited extent, the land being chiefly used for grazing the cows (whose milk is used in fattening the fowls), and some sheep, the latter being periodically killed on the holding and sold retail in joints. The main purpose of the holding is the chicken fattening, for which the lean birds are—as is usual in this branch—collected. The work provides employment for two men.

The headline precludes any present reference to results, but interim reports of progress tend to confirm the general experience relative to the possibilities of the fattening business, and the preceding notes are more particularly concerned with the possibilities of economical beginnings in the matter of "buildings."

## NORTH ANTRIM POULTRY AND ORCHARD ASSOCIATION.

AT the second annual meeting of the members, held in Ballymoney, Mr. J. G. Leslie, D.L., in the chair, the hon. secretary, Mr. R. A. M'Elderry, submitted the annual report. Considerable progress has been made by the Association in the course of the year, the two-fold object of better produce and better markets having been kept steadily in view. Reference is made to the introduction of the pure egg distributing stations, by means of which 800 dozens of eggs were sold in the district at 1s. per dozen. A smaller ordinary expenditure and a much larger membership are anticipated for the coming year.

Mr. Leslie, in moving the adoption of the report, said it should be made widely known that the obtaining of the egg stations depended on the number of subscriptions paid in for the ensuing year.

The following office-bearers were elected: President, Mr. J. G. Leslie, D.L.; vice-presidents, Rev. T. Caldwell and Mr. W. D. Hamilton, R.D.C.; hon. secretary and treasurer, Mr. R. A. M'Elderry; executive committee, Messrs. Charles Stewart, Kilraughts; Daniel Patterson, Springs, Ballywatt; and H. Gray, jun., Dirraw, Finvoy.

The executive committee was instructed to find out the names of those willing to act on the sub-committees, and appoint same for the various townlands, and also to appoint and assist various people, shopkeepers by preference, to act as sub-buying agents in suitable localities.

## POULTRY AS A SOURCE OF WEALTH.

"ALTHOUGH poultry-raising is so simple an affair and accessible to everyone, yet this branch of industry has been pursued, on a manufacturing scale, by comparatively few persons; however, it is easy to show that it would be advantageous both to those who proceed on a small scale and to speculators who operate largely with the view of making a fortune.

"I shall first suppose that the reader wishes to commence operations on a small scale; in that case it will suffice to have a small piece of ground upon which to establish the cages, which will be described hereafter. In case he wishes to operate on a large scale, say, for 10,000 birds, these will require twelve acres of grass-land, being fifty square feet to each bird to roam over, together with an enclosed yard, hen-houses, &c.

### ESTIMATE FOR 10,000 BIRDS.

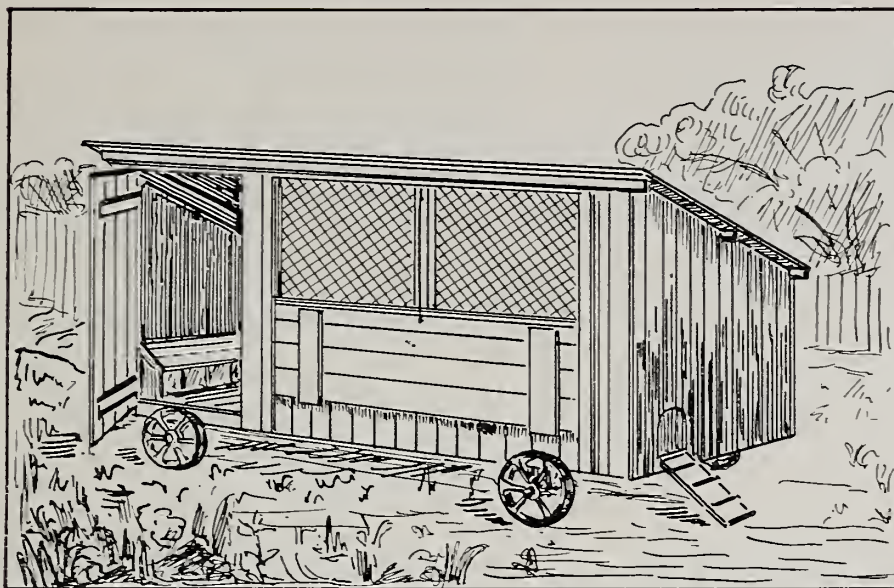
Number.	Eggs a In week. weeks.	Number For one of eggs.	For one shilling.	Value. £ s. d.
5,800 hens.....	5 .. 4 ..	116,000		
3,000 pullets .....	4 .. ,, ..	48,000		
		164,000	.. 30 ..	273 0 0
5,800 hens.....	4 .. 8 ..	185,000		
3,000 pullets .....	4 .. ,, ..	96,000		
		281,000	.. 24 ..	586 0 0
5,800 hens.....	5 .. 12 ..	348,000		
3,000 pullets.....	4 .. ,, ..	144,000		
		492,000	.. 30 ..	820 0 0
5,800 hens.....	6 .. 22 ..	765,000		
3,000 pullets .....	4 .. ,, ..	264,000		
		1,029,000	.. 36 ..	1,439 0 0
8,800 laying stock —	.. 6 moulting	—		—
1,200 cocks .....	— .. ,, ..	—		—
10,000 entire stock —	.. 52 weeks..	1,927,200	..	3,109 0 0
Reckoning one egg less out of every 15, to make up for the smallness of the pullets' eggs, would reduce the number by.....				
		131,146	.. 30 ..	216 0 0
		1,836,054		2,893 0 0
Value of 102 tons of manure at £7 per ton .....				714 0 0
				3,607 0 0

### DEDUCT FOR EXPENSES—NAMELY:

	£	s.	d.
1,306 quarters of Barley at 30s. ....	1,959	0	0
1,070 quarters of Oats at 20s. ....	1,070	0	0
Wages of Man and Woman .....	70	0	0
Green Food, such as Lettuce, Cabbage, &c. ..	40	0	0
Incidental Expenses and Casualties.....	50	0	0
Rent .....	100	0	0
	3,289	0	0
	£318	0	0

This is not a recent estimate, due to an inexperienced enthusiast, but is copied from "Eggs and Poultry as a Source of Wealth," published about forty years ago. Its folly is gigantic. Ten thousand fowls on twelve acres!—more than eight hundred to the acre, and no space for chicken-rearing. A project whose profit depends upon selling poultry manure at £7 a ton is doomed from the outset. The only saving feature is the low price of eggs, ranging from twenty-four to thirty-six for a shilling. Veritably poultry-keeping can be made profitable on paper.





# A PORTABLE POULTRY HOUSE

## COST OF MATERIAL.

	£	s.	d.
2½ squares ¾in. matchboarding at 12s. 6d. ....	1	8	2
80ft. run of 2 by 2 deal at 4s. 6d. per 100ft. ...	0	3	8
85ft. run of 2 by 1 deal at 4s. per 100ft. ....	0	3	6
11ft. run of 4½ by 3½ deal at 4½d. per ft. ....	0	4	2
Wire netting 1s., felt 2s. 6d. ....	0	3	6
Nails, staples, screws, hinges, nuts, bolts, and washers .....	0	5	0
Wheels and fittings, ladder hooks, locks, &c. ...	0	10	0
Paint for outside and limewash for interior ...	0	5	0
	<u>3</u>	<u>3</u>	<u>0</u>

This portable house is built in six sections, as shown in the illustrations. The diagrams, to scale, show front and end elevation, floor, front, end, and back. (a) mortise and tenon joint; (b) angle bridle joint; (c) detail of wheel, showing method of bolting to bearers and house; (d) detail of end of axle; (e) section through front showing position of perches; (f) section through roof showing method of bolting to front and back; (g) detail of floor showing how the ends are bolted to floor; (h) detail of top, showing how end is secured to top; (i) nest-box, showing section with sloping board on top and hinged flap opening outwards.

The sections comprise front, fitted with door, open wired front with sliding shutter; two ends, one with outlet for fowls with ladder attached, the other fitted with flap for nest-boxes; back nailed to lengths of 2 by 2; floor, supported on framework of 2 by 2 timber, and resting on stout wooden bearers; roof, nailed to three rails of 2 by 1. The whole supported on strong cast-iron wheels, 13in. diameter, fitted with axles bolted to stout wooden supports.

**FLOOR.**—8ft. 10½in. by 4ft. 4½in., framed up with 2in. by 2in. stuff, joined at corners and end as shown at b and a. Covered with ¾ t. and g. boarding, flush with outside of frame.

**FRONT.**—This is fitted with door, 4ft. 6in. by 2ft. 3in., and sliding shutter, 5ft. 2in. by 1ft. 10in. Runners for shutter of 2in. by 1in. and 1in. by ¾in. stuff. Opening 5ft. by 2ft. 3in., covered with wire. Two 8ft. 10½in. lengths of 2in. by 2in. for top and bottom rails, and one 6ft. length for perch supports required, as well as four 5ft. lengths and ten 2ft. 6in. lengths for matching, &c.

**ENDS.**—These are nailed to lengths of 2in. by 1in. placed edgewise. Top rail to be 2in. down, bottom rail 4¾in. up. Opening for nest-boxes, 10in. deep and 3ft. 6in. long, 5¾in. up. Flap, opening outwards and hinged at lower edge, made of 10in. lengths, nailed to 2in. by 1in. battens. Bevelled rail over top to prevent water entering nests.

Outlet for fowls opposite end, 10in. by 2in., with round top; ladder 10in. by 1ft. 6in., hinged to short batten, and buttoned up flat when not in use.

**BACK,** 9ft. by 4ft. 3in., nailed to rails of 2in. by 2in. One 8ft. 10½in. rail of 2in. by 1in. for perch supports; latter shown at "S" made of 3in. by 1in. (odd lengths being utilised).

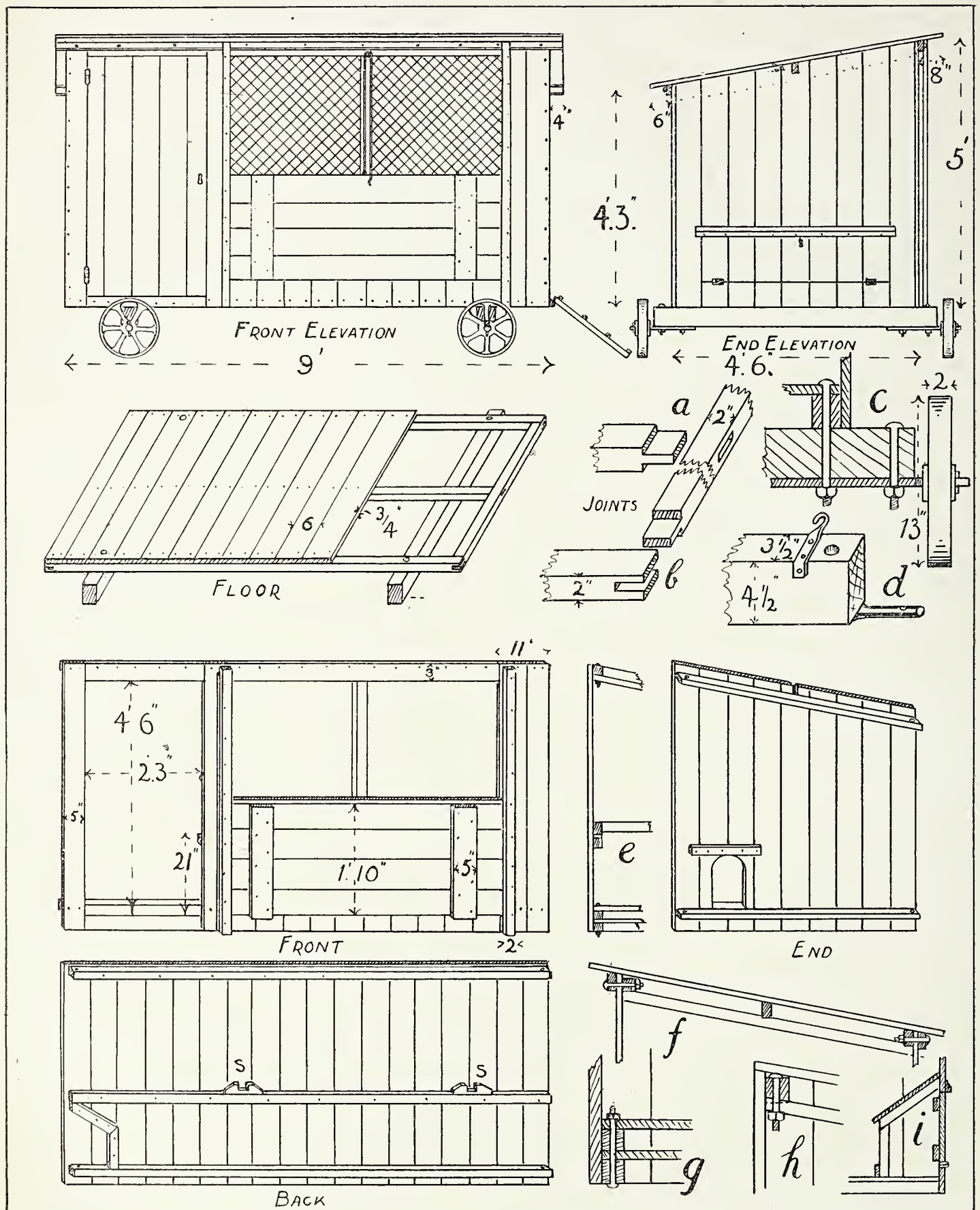
**ROOF,** 9ft. 8in. by 5ft. 10in., nailed to three 9ft. 8in. lengths of 2in. by 1in., and covered with felt placed lengthways. Roof bolted on front and back.

**WHEELS,** 13in. by 2in., with strong wrought-iron axles, bolted to wooden bearers of 4½in. by 3½in. stuff. Hooks, for trace, being made of ladder hooks, with end bent over and screwed to bearer.

**PERCHES** of 2in. by 2in. stuff, rounded on top and fitted in sockets. Dropping boards fitted under.

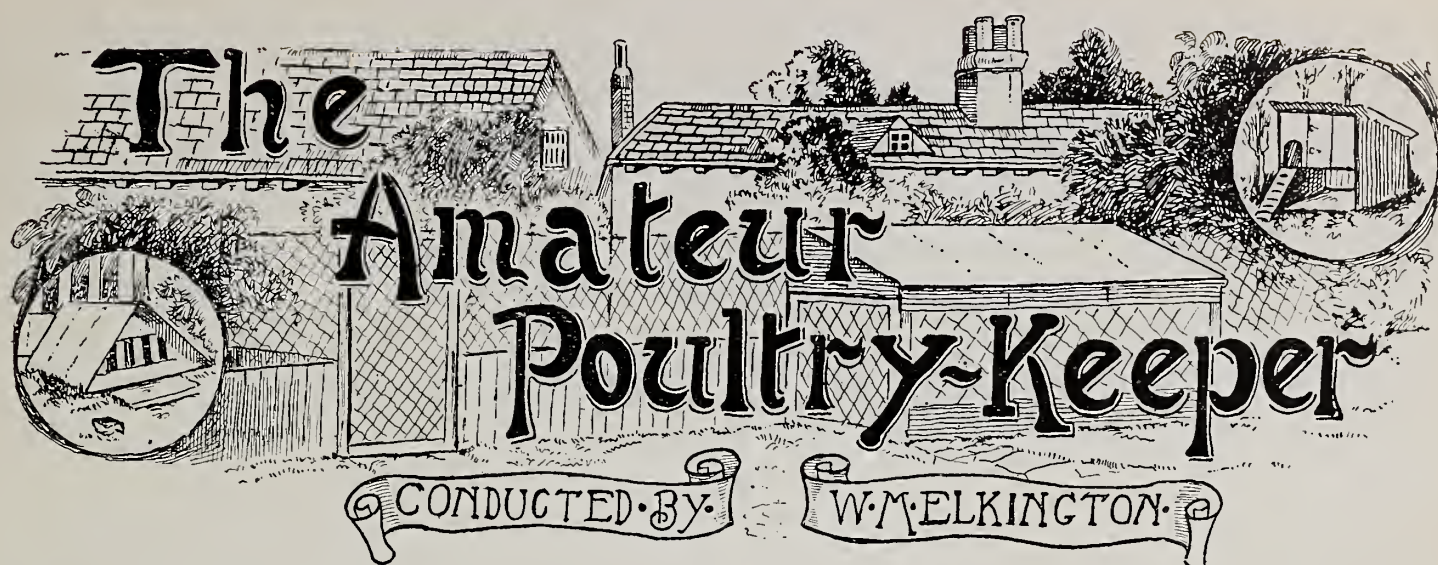
**NEST-BOXES** fitted in at door end and nailed to lengths of 2 by 1, covered with sloping board to prevent fowls roosting on top.



SECTIONAL PLANS OF A PORTABLE POULTRY HOUSE (*vide previous page*).

[Copyright.]





### A Word for Beginners.

Few people regard the autumn as a suitable time to embark upon what is essentially a rural enterprise and an outdoor hobby. The merry, merry springtime is a far more stimulating season, for when Nature is awakening from her long winter sleep, and everything bears promise of good things to come, the thoughts naturally turn to poultry-keeping, and the householder who may have a little ground to spare resolves that he will keep a few fowls. And an excellent resolution, too, though it would have been all the more praiseworthy had it been made three to six months before, for, in spite of the belief that everything should have its beginning in the spring, there is no time like the autumn for commencing poultry-keeping. And why? Well, supposing you wait till next March or April, and purchase a breeding-pen, what result can you expect that season? Your birds will require two or three weeks to settle down, your chickens must inevitably be late, and the chances are that you will get no pullets to lay the following winter, and the price of eggs is so low in spring and summer that your hens will not have an opportunity to pay off their cost before they moult. Depend upon it, the man who begins in the springtime practically wastes a season, if not more, for if your chickens are late one year the chances are that you will have nothing to breed from earlier the following season.

### Autumn for Commencing.

On the other hand, the man who commences in the autumn not only has his stock ready to breed in good time, but he has an excellent chance of wiping off the cost of his stock by producing eggs during the time the price is high. Inexperienced persons cherish extraordinary notions about poultry, and a little time ago I met a lady who was under the impression that fowls hibernate from October to April and lay no eggs during that time. But the truth is that the winter is the skilful poultry-keeper's most profitable season, and March or April hatched pullets that are purchased just now will, with reasonably good management, settle down and lay

during the next three or four weeks and continue throughout the winter, whilst if a cockerel is introduced in the new year fertile eggs may be obtained for hatching before the spring poultry-keeper has begun to think about getting some stock together. Moreover, most people have more time at this season of the year to fit-up houses and fences, and as these preparations take time, and time is necessarily more valuable in the spring from the breeder's point of view, the advantages of an autumn beginning are doubly obvious.

### Winter Quarters.

Most of us are thinking just now of making things snug for the winter that is looming large before us, and in most cases our ambition is to keep our fowls so cosy and comfortable that they will defy the cold and lay all the winter. A great deal naturally depends upon the available accommodation, and there can be no doubt that the amateur with a small, sheltered run in his backyard or garden has an even better chance of producing a regular supply of winter eggs than the more extensive breeder whose fowls are kept in larger and more exposed runs. Only keep the birds healthy by giving them plenty of scratching exercise, and feed well, but judiciously, on a moderately stimulating diet, and the hens are pretty certain to lay. But beware of the artificially heated hen-house. This is not comfort, but coddling, and birds kept in such places are more liable to take a chill when they go out in the cold air. If hens cannot be induced to lay in roomy, sheltered scratching-sheds, with good food and management, it is pretty certain that artificial warmth at night will not do them any good.

### Small Successes and Large Enterprises.

I have a letter from a gentleman who has been so successful with a few hens kept in a small enclosure that he is contemplating an extensive poultry-farm run upon similar lines. About twelve months ago I advised him to keep six or eight hens in a small shed at the bottom of his garden, and he informs me that the result of his efforts has surpassed all anticipations. In fact, there has not been a day when he has not had one or more eggs,



and though he has kept no count of the cost, he is well satisfied that his fowls have paid handsomely. So far so good. But this gentleman has come to the conclusion that if a few fowls pay so well, there should be money in poultry-keeping upon a larger scale, and he has his eye upon an acre of ground, upon which he desires my opinion as to the maximum number of birds he may safely keep, and what profit he may reasonably expect. But, after all, this is only one among hundreds of cases where amateurs have succeeded with a few hens kept under favourable conditions in sheltered runs, and have leapt to the conclusion that they can reproduce a comparatively good result with a large number of fowls, with a proportionately large area of ground. This is merely a phase of the poultry-farming question, and every amateur should know that there is a deep gulf between poultry-keeping on a small scale and poultry-farming.

### Why Small Operations Pay Best.

It is a source of wonder to many people that because a small flock of half a dozen hens may give a profit of 7s. 6d. per head, per annum, two or three hundred cannot be made to do the same; but the reason is obvious. With a small flock of hens, kept on ground that costs nothing for rent, one may economise in feeding by utilising household scraps, and concentrate one's attention and care upon the birds in order to keep them in good health and productiveness. But with a large stock of poultry on an acre or more of land there comes first the item of rent, then the food costs proportionately more per head, close attention cannot be given, or, if it is, labour must be hired, whilst in addition there are houses, fences, and losses by diseases, which combine to render the enterprise unprofitable.

## THE AMATEUR'S GUIDE FOR OCTOBER.

**P**ULLETS that begin to lay during this month, and especially towards the latter end, are the most likely to continue laying throughout the winter. It does not necessarily follow that birds cannot commence earlier and still continue right up till next summer, but winter laying entails a considerable strain, and when energy is expended before the real cold weather comes there will be less in reserve to withstand the sudden onslaught of Arctic conditions. And as a general rule we do not experience much cold weather before November. Last year the fowls were not severely tried till Christmas week, and when the cold weather is delayed in that way the birds have a good chance to commence laying, though they are more likely to be affected by the change when it comes. At any rate, energy and vigour are the things we require in a winter-layer, and for that reason a well-matured pullet is to be preferred to a bird that commences laying when she is a little more than five months old.

Therefore, if a bird is well matured and in good condition one will be quite justified in using stimulants to

induce egg-production at the present time, though it would not be advisable to treat undeveloped pullets in the same way. There are various degrees of stimulation. In some cases warm, soft food and a small supply of meat every day are quite sufficient to start birds laying, and it is best to begin in this way. Should the birds not respond in the course of two or three weeks a little liquid ovary tonic or poultry powder may have the desired effect, and if that fails there must be something radically wrong with the management, and the probability is that the birds are having too much food and not enough exercise.

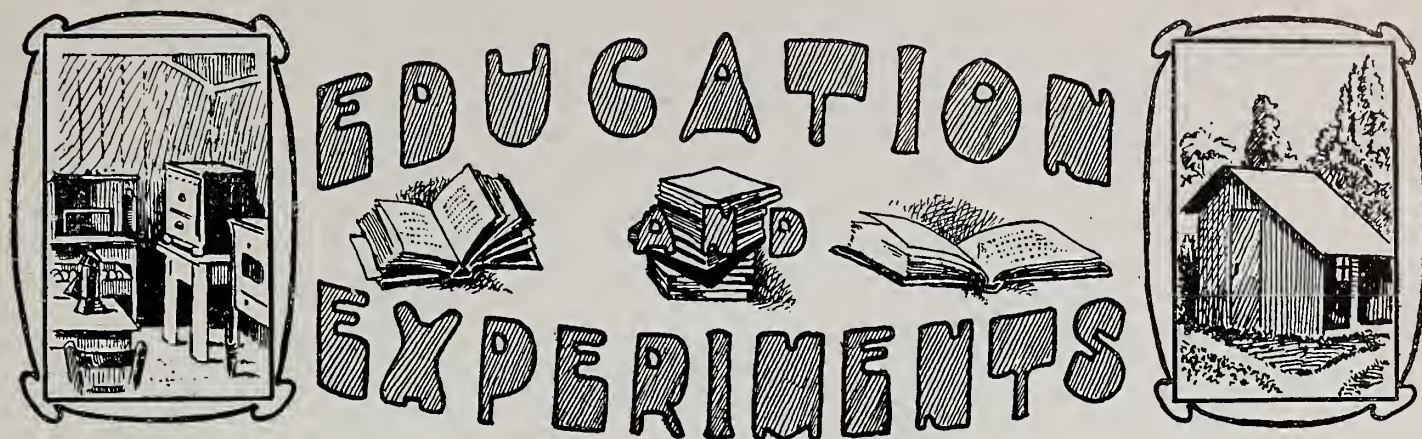
The question of condition for laying is an important one just now. Because a hen may be too fat to lay, it does not necessarily follow that she should be poor. But there is a happy medium, erring, however, on the side of generosity, and to attain that happy medium you must see that the birds have plenty to eat and plenty of exercise. Food without exercise will merely make them fat and unfit, and exercise without food will not produce eggs. Then, again, the food must be good, and it must be given judiciously. It is no use giving a hearty meal of warm soft stuff early in the morning. Its effect will soon pass, but if half a meal of soft stuff is given, followed by the other portion of hard corn scattered among the litter, the effect will be lasting and productive.

It is well to remember also the value of meat as an egg-producer, and with regard to the various ingredients of the daily food there is nothing better in the way of soft stuff than scalded biscuit meal dried off with sharps, pea-meal and maize-meal. Wheat, unfortunately, is too dear for poultry just at present, but a good selection can be made from plump white oats, dari, white peas, and maize. The latter is essentially a winter grain, being heating and fattening, and for hens that are running in comparative liberty it may be given in generous quantities, though fowls in small runs do not need so much, and should not have more than one part maize with three parts of other grain, such as oats and dari.

But we must also consider the older stock, and this year, I am afraid, owing to the comparative lack of warm weather, there will be more late-moulting hens than usual. I have seen some that are through the moult and laying again, whilst others are only beginning, and the latter will have a hard time if cold weather catches them before they have assumed the new plumage. In such a case they must be kept under cover, and be well fed on food of a heating character. The unfortunate part of it is that these late-moulting birds will barely be ready to lay again this year, though a good deal can be done to hurry them along by housing them comfortably and using stimulating food.

If any work in connection with the houses, fences, and runs has been neglected, it should be completed at once. The roofs in particular need attention before bad weather sets in, and leaks can easily and cheaply be stopped by putting on tarred felt all over the roof. Clean out all scratching-sheds, and bring in a fresh supply of litter whilst there is plenty to be had.





## CLOSE OF THE COLLEGE POULTRY FARM, THEALE.

A CONSIDERABLE amount of scepticism has been felt and expressed as to the announcements made some time ago to the effect that University College, Reading, had decided to discontinue the College Poultry Farm, Theale, and with it the special instruction in poultry-keeping, which has been a leading feature in its agricultural teaching for nearly fifteen years. There was a widespread hope and anticipation that even at the eleventh hour something would be done to save it. Considering the way in which the poultry farm has added to the influence of Reading College, giving it a unique position both in this country and abroad, considering also the large number of students who have attended its courses and the place accorded to its poultry certificates, and further that the valuable experiments conducted at the poultry farm have in many cases been reported in the Journal of the Board of Agriculture, it was regarded as almost impossible that the Board would consent to, or the College could seriously contemplate, the abandonment of such an important section of its work. Questions have been asked in Parliament on the subject, and several influential people have interested themselves in order to save it. But all in vain. This institution, which has done so much for the poultry industry, and was expected to do more in the future, has ended its career. That is an accomplished fact.

It is too early to deal with the responsibilities of those concerned in terminating an important educational and experimental centre. But it is a serious reflection upon our educational system that, with the twenty millions of public money now being spent upon education in this country, the comparatively infinitesimal amount necessary to continue the College Poultry Farm should not be forthcoming. Hitherto the financial burden has been borne by Mr. Edward Brown and his two sons, who have spent in eleven years nearly £1,200 in its maintenance for educational and experimental purposes, not as a commercial concern. Such a sacrifice for the public good should have found its reward in the

establishment of a permanent institution, but, with the abandonment of the farm, has gone for nothing. The whole thing is inexplicable, and suggests a serious reflection upon those concerned.

The brief history of the College Poultry Farm is that it was founded in 1898 to provide practical teaching in poultry-keeping to students of the Reading College, which had introduced this subject four years previously; that the provision of the farm led to a great increase of students from all parts of the world; that the practical instruction was co-ordinated with theoretical teaching, and contributed to a great increase in the poultry industry; that it was the pioneer in several developments of the industry; that in 1900 there was begun a series of experiments which has not only added to our knowledge, but materially increased the successful practice of poultry-keeping; and that many instructors and large poultry-farmers at home and abroad have been trained there. A fuller record of its work is to be found in the evidence published in connection with the Reay Committee on Agricultural Education.

## WHY EGGS DO NOT KEEP.

MANY problems present themselves for solution in respect to eggs, which offer a wide field for research. One of these is why eggs kept under apparently identical conditions may vary so much in their final state—that is, why some retain a measure of freshness and others go bad. It is generally admitted that bacteria are often responsible for decay, and that these minute creatures can penetrate the shell through its pores. A bulletin recently published by the Storrs Agricultural College, written by Professor G. H. Lawson, M.S., and, aided by a series of excellent illustrations, throws some light on the question. Mr. Lawson says:

The egg is complex chemically, and, like milk, it is one of the best places for bacteria to multiply. The work of these organisms is to simplify or decompose the white and yolk until the egg is, seemingly, worse than useless, though even rotten eggs find a place in the market for polishing leather, and are sold by the large packing houses for that purpose.



Most eggs have bacteria in them, and though these may be few in number and the egg called "fresh," yet if they were placed under conditions favourable to the multiplication of the bacteria they would decompose in a short time.

It was found that the infection of eggs may be caused in various ways—namely, from the presence of bacteria in the hen's ovary, from a diseased condition of the ovary, from defective shells, and from penetration of the shell by bacteria. Attention is called to the results of dirty nests in which there are a large amount of

## LANCASHIRE COUNTY COUNCIL POULTRY SCHOOL, HUTTON, NEAR PRESTON.

THE Lancashire County Council Agricultural Sub-Committee has for several years past made liberal provision for demonstrating the principles underlying successful poultry-keeping, and that its efforts are appreciated by the poultry-keepers of the county is



THE POULTRY BUILDINGS AT HUTTON.

[Copyright.]

bacteria. But the most important statement is as follows :

Whatever the means of infection, it has been found that a larger percentage of the July, August, and early September eggs are infected, or contain a greater number of bacteria (at a time when they may be called "fresh"), than the eggs of the other months of the year, particularly when compared with the eggs laid during the months of April, May, and June. This corroborates the opinion of egg packers, who invariably prefer April, May, and June eggs to those produced during the other months of the year.

It is well known that summer eggs are bad keepers, but hitherto it has been thought that was due to the temperature at which they are put down.

evident from the interest taken in the work of the poultry department. Recognising the importance of poultry-keeping in Lancashire, the Agricultural Sub-Committee, which is presided over by the Rev. L. C. Wood, who, by the way, has just celebrated his ninetieth birthday, is at the present time considering a scheme for extending and improving the present arrangement for teaching poultry work. Mr. Wood, it may be added, is strongly supported in his efforts to improve the welfare of the farming community in Lancashire by Sir Henry F. Hibbert, the Chairman of the Education Committee.

The Poultry School, which is in the charge of Miss



Brown, is conducted at the County Council Farm, Hutton, a little more than three miles from Preston, and about ten minutes' walk from Hutton and Howick Station. The poultry comprise about 1,000 head, chiefly utility varieties, and these are accommodated in the range of breeding-pens shown in the illustration; and also in pens extending over a considerable portion of a 14-acre field. All the chickens and ducks which are reared, and not required for stock or laying, are fattened and trussed for market, the produce being chiefly dispatched to private customers.

the subject to enable them to keep poultry on right lines afterwards on their own farms. For those who are in a position to give their whole time to the work, complete courses of nine weeks and fourteen weeks are arranged for junior and senior students respectively. One course each year is provided for male students. Great importance is attached to the practical work, and the courses provide for each student obtaining experience in all sections of the work.

The Junior Certificate is awarded to all students who have satisfied the Committee in the Examination held at



SOME OF THE BREEDING-PENS AT HUTTON.

[Copyright.]

The range of buildings provides a large, well-lighted trussing room, food room, fattening-shed, plucking and lecture room. There is also an incubator house in close proximity to the rearing ground, which is well equipped with different makes of machines, and these are kept working nearly all the year round. Sittings of eggs and pure-bred cockerels are supplied at reasonable prices to farmers and others, to encourage them to improve their stock.

The courses of instruction are so arranged that the students who are attending the Dairy School, also held at the County Farm, may receive sufficient knowledge of

the end of each Junior Course; the Advanced Certificate is awarded to all students who have already obtained the Junior Certificate, and who have satisfied the Committee in the Examination held at the end of each Advanced Course.

The Teacher's Certificate is awarded to students,

1. Who have already received a training in the Principles of Agriculture.

2. Who have gone through a training of at least two months at the Lancashire County Council Poultry School.

3. Who have passed successfully the Special

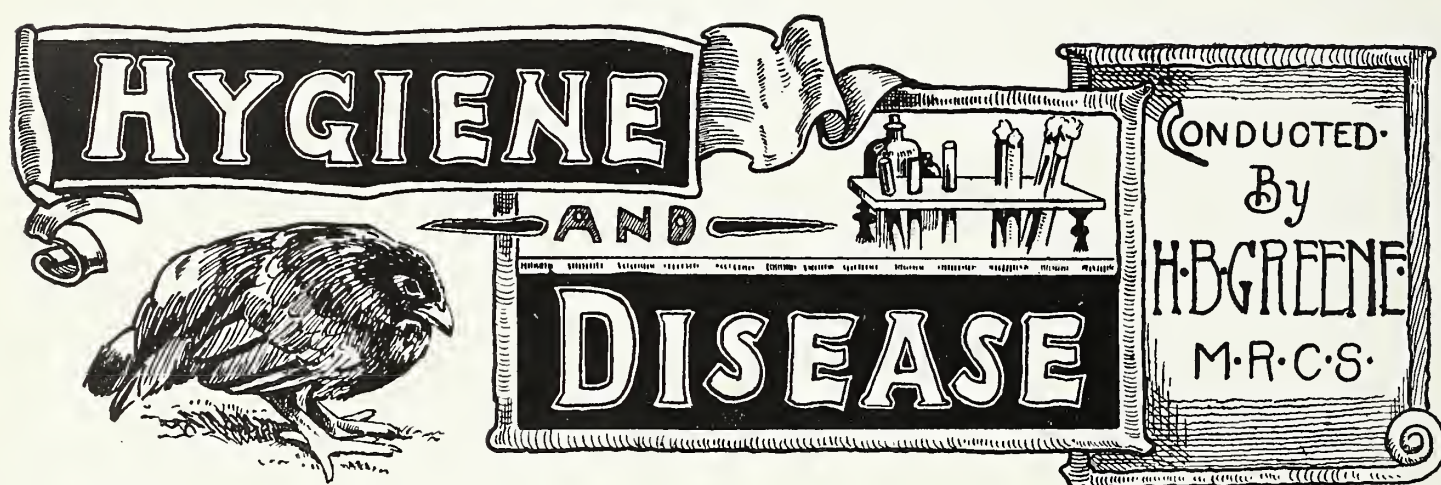


Examination held at the close of the Advanced Course.

An attractive display of poultry produce from Hutton is exhibited annually at the Royal Lancashire Agricultural Show, and trussing competitions are arranged in connection with that Society. Many of the students compete for prizes, and thus enable the public to see this section of the practical work.

During the winter months Miss Brown spends a

considerable part of her time in lecturing on poultry subjects at various centres in the county. From October, 1908, to March, 1909, the forty lectures given were attended by 3,131 persons, the average for each lecture being 78. The attendance shows that Lancashire people are very enthusiastic poultry-keepers, and in recent years there has been a considerable increase in the number of poultry kept. In a district near Preston it is quite a common sight to find 2,000 birds on one place.



### POST-MORTEM EXAMINATIONS.

We have made arrangements by which post-mortem examinations of poultry and game can be effected for our readers upon the following conditions :

1. *The specimen is to be forwarded postage or carriage paid and securely packed to "Biologist," 297, Trinity-road, Wandsworth Common, London, S.W.*
2. *The fee of 2s. 6d. (stamps will not be accepted) must be remitted with each specimen and a letter giving particulars of feeding and housing, or any symptoms which were observed before death.*
3. *Birds should on no account be addressed to the office of the paper. If forwarded there they will be returned to the sender.*

It is recommended that specimens be dispatched by parcels post, where practicable, and as soon after death as possible. A reply will be received by letter, defining the disease, its cause, treatment and prevention.

### The Causes of Apoplexy Among Poultry.

Birds, in that they possess a system of blood circulation as perfect as that of mammals and man, are alike exposed to such disasters as follow any interference with the equable flow of the blood current. Obstruction at any given point of the system will at once lead to engorgement and increased tension right back all along the line of march behind that spot. And just as in the case

of a garden hose which bursts on an increased water pressure by the sudden turning on of the supply tap, or from obstruction in some part of its length, so will an augmented blood pressure find out the weak places in the vessels, and these, giving way, induce the symptoms, always serious, but not necessarily fatal, to which the general term apoplexy is applied. As concerns its occurrence among poultry, the causes may be described as inherent, or incidental, or both. That the apoplectic predisposition is inheritable there can be little doubt. It is no abstract inheritance, but one of a definite anatomical lesion, a structural defect in the walls or lining of the blood-vessels themselves, rendering them prone to break under unusually slight strain. We are all, more or less, familiar with instances in human pedigrees where this undesirable fatality crops up in successive generations. And poultry fanciers, too, meet with it often, especially where line breeding has been closely followed. When observed in a strain, there is only one thing to do. Whatever sacrifice it may involve, however laboriously the strain may have been built up, rigid exclusion of the apoplectics from the breeding-pen must be maintained. Apoplexy is one of the very few diseases (if, indeed, the term is allowed to be applied to what is in reality a physiological variation) which, strictly speaking, are inherited. And it is not difficult to see how such a peculiar structural variation, appearing suddenly in a



strain, though liable to efface itself among animals in their natural state, would be likely to become fixed under domestication and artificial selection. But the inherited weak blood-vessels are only the predisposing cause. The direct causes which lead up to the break include over-feeding, obstruction, and pressure of internal organs by fat, congested state of the liver and kidneys, sexual excitement, and straining to lay under mechanical difficulties. The young and lusty cockerel or turkey sire may succumb to apoplexy in the breeding-pen. His end is generally near the commencement of the breeding season, when duties are exacting, and he is getting more than his share of food. The old and fat hen may also go the same way. Her demise takes place as a rule at this time of the year when eggs are getting scarcer, and no corresponding decrease has been made, as it ought to be, in her diet. In her case mechanical obstruction of the internal organs by fat is the direct cause.

Nor even is the pullet exempt from this death. It may accompany the strain of an unsuccessful attempt to lay a first egg. The ruptured blood-vessel need not necessarily be one of those in the brain; the ovary and lungs are often the seat of the hæmorrhage. One of our readers recently sent a hen for post-mortem examination, which had been picked up dead under the perch. Large deposits of fat were found around its intestines and oviduct; the latter was occupied by a fully shelled egg, the attempt to expel which had apparently failed, while in the left lung, far removed from the scene of these mechanical difficulties, a pulmonary apoplexy had taken place and about an ounce of blood had escaped into the thoracic cavity. We mention the details of this instance, as they prove that several influences here combined to bring about the fatal result.

### Making Snug for Winter.

However carefully the enthusiastic poultryman may pride himself on keeping the fowl-houses, there is always a time, generally at the commencement of autumn, when a thorough overhauling of the premises, prior to the sorting of chickens and the mating up of breeding stock, will bring to light many defects, the repairs to which will do much to obviate disease and ensure success in the next season. An inspection of the interior of the houses on a rainy day will reveal spots where shrunken boards or sun-cracked felt admit the water. A constant drip on the back of a roosting fowl is the most common cause of rheumatism and pericarditis, and a damp floor is the surest means of limiting the egg supply. The leaking-points should be marked with chalk and on the first fine day thoroughly repaired. Then the floors, nest-boxes, perches, and all wood fixtures will require attention, for which lime, paraffin, soap, and fluid disinfectants are called for. Moulded dead feathers, if allowed to lie about, not only harbour but feed lice, and a floor caked with manure is a fine hot-bed for the culture of bacteria. Poultry-keeping is not so refined a hobby as many people suppose it to be, and the work, or

at least its supervision, can very easily get behindhand. The wise fancier is he who will put his houses in order now, without waiting for the dark and wintry days. To do so then will be found to be much more irksome, and meanwhile disease and parasites will have got a good start.

### Heat Stroke in South Australia.

One of the chief difficulties that confront the poultry industry in South Australia would seem to be the great heat from which fowls suffer during some months of the year, and the losses entailed thereby. Mr. D. F. Laurie, the Government Poultry Expert in that Colony, in presenting his report on the egg-laying competition, reports that thirteen deaths occurred among the 324 competing fowls during the year, and of these no less than four fatalities were put down to the heat. Taking this into consideration, the low mortality in this competition is very creditable to those responsible for the care of the birds. There is no reason, however, why with competent supervision and early examination of sick and dead fowls the mortality in all these competitions should not be kept down to the minimum, and recently we in this country have done even better than our Roseworthy friends in this respect.

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## PARASITISM.

By T. COZENS GARRY, F.R.C.V.S.

THE study of Parasitism is one of absorbing interest, which is intensified when we consider the commercial value which is attached to a knowledge of the prevention and cure of the pests to which the domesticated animals are subject.

When two animals or an animal and a plant have an existence dependent upon one another, that existence is explained by one of three designations—Mutualism, Commensalism, or Parasitism.

MUTUALISM is where two live together, and the union is beneficial to both, and they are mutually dependent on each other. COMMENSALISM is where two live together and the union is beneficial to *one* only, but without proving injurious to the other. PARASITISM differs from both these in that one of the two draws its subsistence from the other to its appreciable injury.

Parasites may be divided into animal and vegetable, and again into those which live without or within the body of the host; but there are, of course, many divisions and sub-divisions into families and groups, which are not necessary to go into here.

Some are comparatively harmless, such as the Acari of feathers of birds, others cause serious local and constitutional disturbance, such as intestinal worms, or the vegetable parasite causing Favus.

The seriousness of a parasitic invasion depends as much on the favourable conditions of the environment as on the presence of the parasite itself, so that an out-



break can be dealt with to a considerable extent by change of environment, the exhibition of medicaments to the individual patient being only part of the treatment, the extirpation of the parasite from the flock being really more important.

Dark, damp, close, and unclean buildings favour the propagation and preservation of parasites, especially fungi, and must be taken into consideration in any treatment adopted.

In this article I wish to deal shortly with parasites belonging to the vegetable kingdom affecting poultry.

These belong to the family of Moulds or Hyphæmycetes. They consist of numerous filaments (Hyphæ) formed by a single row of cells placed end to end growing by means of an apical cell which elongates and divides transversely. All filaments spring from a germinal tube which grows from a germinating spore.

In the adult plant the Hyphæ are of two kinds :

1. NUTRITIVE, which grow into and extract nourishment from the culture soil (skin), forming in it by their interlacement the Mycelium.

2. REPRODUCTIVE, which spring from the mycelium and stand up from the skin in which the mycelium lies and are called Fruit Hyphæ, and bear at their end the spores (reproductive organs).

Each spore consists of a little mass of protoplasm surrounded by an envelope. All spores have great power of resisting physical and chemical action, and retain life for long periods.

The most important of the vegetable parasites affecting poultry are the *Aspergillus* and those causing the two kinds of ringworm.

**ASPERGILLUS.**—This vegetable parasite affects the internal organs of the bird, the air passages, and alimentary canal. The spores are inhaled from the food or dust. The disease generally affects highly-bred and delicate birds. Where birds are forced by cramming by means of a tube the latter becomes a ready means of transfer from bird to bird. The *Aspergillus* belongs to a group of fungi of the order *Ascomycetes* (askos—a bladder bag), so named because the spores are formed by partial division in the interior of tubular or mother cells.

The affection causes tubercle-like masses or greenish patches in the mucus membrane at the back of the nose and larynx and trachea ; it also affects the liver, lungs, diaphragm, peritoneum, and intestines.

**SYMPTOMS.**—Croupy expectoration, catarrh, portions of the fungus may be found in the expectoration, difficulty of breathing, moping, sleepiness, debility, ruffled feathers, sunken head, thirst, want of appetite, diarrhœa, emaciation.

**TREATMENT.**—The best hope of success in treatment is when the fungus is confined to the respiratory tract.

Injections into the trachea (wind-pipe) of a solution of hyposulphite of soda (two drachms to a quart of water) is advocated by some, but this must be a tedious process. Fumigation is the most practicable, and this must be carried out with great care to avoid suffocating the birds. The best method is to produce sulphurous acid gas by means of burning flower of sulphur mixed with a little spirit of wine. For every 1,000 cubic feet of air space in the building use 1lb of sulphur. The doors and windows must be closed, and the air of the building saturated with the gas to such an extent as can be borne without coughing violently. This may be kept up twice daily for about half an hour. The attendant must stay with the birds ready at any moment to admit air by opening the doors and windows, and at the same time removing the burning sulphur when the coughing becomes violent.

The poultry-houses, roosts, nests, &c., should be lime-washed after well scraping the walls, the feeding-troughs should be well scrubbed, and the yards disinfected.

**TINEA TONSURANS.**—Ringworm, which is more generally found affecting man and animals, is rare in poultry, but when it does occur shows itself in loss of feathers and redness around the papillæ of the skin. *Tinea Favosa*, or *Favus*, is more commonly found in fowls, and is known as white comb. It is most contagious, and is due to the presence of the parasite known as the *Achorion Schönleinii*, the same causing favus in human subjects ; but investigators, having found that the favus of fowls differs somewhat from that of man and animals, have given the parasite a distinguishing name—viz., *Zophophyton Gallinæ*.

**SYMPTOMS.**—Small white spots like mould on the comb and lobes of the ears, growing larger and uniting to form a white coating over the comb, changing later into a thick scab, afterwards invading the skin of the head, neck, and whole body. The bird grows thin, the feathers fall out, the body is scaly, there is great thirst, feverishness, sleepiness, diarrhœa, and a mouldy smell, ultimately death from exhaustion.

**TREATMENT.**—Stronger dressings may be applied to the head, comb, and neck, as these parts cannot be reached by the beak, and therefore risk of poisoning is small. To these parts should be applied twice daily red oxide of mercury, 1oz. to 8oz. of vaseline, mixed to form ointment. To the other parts of the body apply twice daily an ointment of 1oz. creolin to 10oz. vaseline, or 1oz. of oil of tar to 10oz. of machine oil.

In this case also the poultry-houses, roosts, nests, feeding-troughs and yards must be thoroughly disinfected.





## CHICKENS AND DUCKLINGS IN THE OUDENARDE DISTRICT.

IN the May RECORD an account was given of duck-breeding at Laplaigne, Belgium. Another famous district is in the valley of the River Escant, near the City of Oudenarde, which is in East Flanders, about midway between the City of Ghent and the French border. Historically, Oudenarde is of interest, but upon that we need not dwell. On both sides of the river above the city the valley is flat, flanked by hills of a fair elevation. The low-lying lands are water meadows, which are flooded in the autumn, remaining in that condition until the end of February, when they are drained. Upon these meadows, which are communal as at Laplaigne, ducklings are raised in enormous numbers. Here they find an abundance of rich, natural food, in return enriching the land by their manure. It has been no uncommon thing to see during March and April a hundred thousand ducklings of various ages in the six or eight miles above Oudenarde. In April the birds are removed and the land left for hay. When cropped, the meadows are used for cattle and chickens. It would be difficult to devise a more complete utilisation of Mother Earth, and the response shows how rich is the return.

The breed kept in this district is hardy in the extreme and largely of the Huttegem type. Hatching is entirely by means of hens. The method of rearing appears very drastic. A day after hatching the young birds are divided into flocks of about fifty, which lots are each in charge of a hen, not for the purpose of brooding, as they receive no warmth, but simply to keep them together, and, when they are out in the open, to defend them against crows, which are their chief enemies. When a couple of days old, they are taken out on to the meadows, no matter what the weather may be, and allowed to wander as they think fit. The only protection given is by means of hurdles covered with straw to break the force of the wind, and they are allowed to go into water, even when it is cold and the ice has to be

broken for them. A few die, the weaklings, and that is thought desirable.

Our Belgian correspondent, M. Louis Vander-Snickt, sends us the following notes of a visit recently paid to this district, with a series of interesting photographs, some of which are reproduced :

"This morning," writes M. Vander-Snickt, "I visited Bevere, near Oudenarde, and Tetegem, returning over the meadows and passing the 'Hutte,' which is an inn with large trees around, making an island on the sides



A STRAW HUT FOR EARLY DUCKLINGS [Copyright.]  
AT TETEGEM.

of the Scheldt when the meadows are under water or ice. In the time of Charles V. (1550—1554) the 'Hutte' was celebrated for its pikes and eels. The ditches of these meadows form ideal places for pike, but at present the river is polluted by the industrial waters of Northern France. That, however, is another story.

"I have been surprised to find at Huttegem and Tetegem more chickens than ducklings, and that the chickens were running and seeking their food in the water or ice. As soon as the Houdan is removed from



its warm, sandy district it ceases to thrive. The Malines loses its size when taken from the Campine country. Feather-legged fowls do not bear moist conditions—they require dry sand. During the last three or four years duck-breeding has diminished in this district and chicken-breeding increased. All that I saw were on the meadows, mixed with the ducklings, using the same straw shelters shown in the photographs. Chickens are said to thrive better on the wet meadows than on dry fields where they must depend upon grain. On the meadows they find so large a quantity of animal food, along the ditches and in the moss, that they do not touch any grain. It seems to me that the worms and insect food give to the chicken feathers the same resistance to water as in those of ducks. On each farm about 100 Braekels are kept for laying and half a dozen Huttegens as brooders. The following notes will explain the photographs:

"No. 1. Tetegem, three miles from Oudenarde. The severe winter of 1908-9 checked the production of early ducklings, and more chickens than usual have been bred. The straw hut near a dyke is representative of all. The hen is tied by one leg and has the chickens and ducklings around her. They are fed on dry sacks. A large hamper is shown for carrying them home in the evening. On the road are seen cows harnessed to a cart.

"No. 2 shows the inn and ducklings of different sizes. Most of these have white bills, or blue spotted with white, blue spots on the head and on the rump. If



[Copyright.]

some breeder would go in for them and line breed, he could improve considerably.

"No. 3. Before leaving I took a view of a corner near the dyke, the road, the yard, sheds, and garden. Before taking a photograph one sees a quantity of birds,

but the largest part have disappeared on the print. Photos never give the impression of quantity.

"When the good people saw me they remembered our friend Franklane A. Sewell (the 'rich' American artist who gave them money for drink), and they asked immediately if they might make a 'tableau' for me, but the ground was too hard and dry.

"After a long walk over the meadows with the proprietor of the inn, we came to the 'Hutte' island. Instead of ducklings, we find in a dip full of nettles a splendid lot of fifty or sixty Malines, and I never saw healthier birds. Chickens under such conditions have crops full of aquatic insects."



[Copyright.]

### Double Mating.

Mr. W. S. Spillman, of the U.S. Department of Agriculture, dealing with Plymouth Rocks in *Poultry*, of Peotone, Ill., says very pertinently:

I wish here to suggest that since science has discovered what seems to be the cause of the difference in colour of the two sexes of this breed, and since males must necessarily be lighter than females, would it not be the part of wisdom for the fancier to endeavour to learn just the shade of difference Nature tries to produce between the sexes, and then change the standard accordingly? This would obviate the necessity of a system of double mating, which would be a great advantage to the breed. It is always easier to work with Nature than against it.

### German Egg Imports.

The U.S. Consul-General at Hamburg reports to his Government that Germany imports annually about 3,500,000,000 of eggs, principally from Russia, Asia Minor, and Egypt. It is also the case that large quantities are received from Italy. If the above figures are correct, Germany is now the largest importing country, which fact will explain the shortage of foreign supplies on the British markets.





### Foxes in Australia.

Master Reynard appears to be making his influence felt in New South Wales to a greater extent than in England. There he has been used in reduction of the rabbit pest, but the abundance of food thus provided means propagation of foxes to an alarming extent. It is stated that thousands are to be found in a given district. A bonus has been offered of 5s. per head brought in, and in the Broken Hill district 2,200 were paid for last year. Commenting upon reports appearing in the *Sydney Morning Herald*, the *Australian Hen* says :

This pest is increasing with frightful rapidity, and he is gradually spreading over the face of the country. He has invaded even the metropolitan area, and everywhere is commencing to make serious inroads on the flocks and profits of the poultry-keeper. This is not fiction but fact. Every day the papers have reference to his presence and fecundity, and unless some steps are taken at once to permanently put him under, he will eventually prove the greatest of all the curses Australia has had to suffer from.

We expect there will be a large emigration of fox-hunters to Australia. Messrs. Cook and Son should organise parties to New South Wales.

### South Australian Egg Trade.

Claim has been made that South Australia is one of the most favourably situated states for egg-production, and a fair amount of export takes place to other Colonies. In 1908 the quantities were 2,832,355 dozen, with a total value of £127,500. But there is seen the same tendency as in Europe, due to increased demand and improved quality—namely, reduction of quantities shipped, with increase of value. As compared with 1907 the number was 283,787 dozens less in 1908, whereas the value was £7,289 greater. In four years the average price of exported eggs has advanced from 8·69d per dozen in 1905, to 10·8d per dozen in 1908. That should give a great impetus to the poultry industry. It explains, however, the falling-off in shipments to England.

### Breeds at the Cape.

In its report of the poultry show held recently at Capetown, the *Cape Mercury* says :

As of yore, the Black Orpingtons make a strong section of themselves, the strongest in the show, and they as a class carry off premier honours for a good all-round class. The Buff Orpingtons, two years ago a very strong one, has now practically dwindled to nothing. Probably equal, or very nearly so, to the first-named is the Game, in which section there are many birds of excellent quality. Ranking after these in numbers come the Wyandottes and Leghorns, both of which have many exhibits of a high class, although in the latter some birds have been exhibited which do not come up to the standard of the previous show.

### Indian Notes.

Things are evidently waking up in the great Dependency, which, the original home of the Domestic Fowl, has hitherto been somewhat in the rear. In the September RECORD was shown what is being done in Eastern Bengal and Assam. The following notes from various exchanges show something of what is being done :

In the Rampur State in the United Provinces the supply of high-grade poultry for breeding purposes has been taken up by the authorities, the enterprise—a commendable one—being subsidised by the Local Government in its initial stages.

At Simla a short time ago a Punjab Poultry Association was formed under the patronage of His Honour the Lieutenant-Governor.

Captain Tyrell, of Aruvaukadu, Madras, has circulated to every poultry-keeper in the Nilgiris a pamphlet suggesting the starting of a Poultry Fanciers' Association, among whose objects are named the encouragement of better poultry, and the encouragement of utility qualities by egg-laying competitions, &c.

Slowly but surely the various Boards of Revenue are waking to the value of the poultry industry (says the *Indian Fowl Fanciers' Journal*). The Imperial Government have taken it up warmly, and Mr. Mollison, loyally assisted by Mr. Shearer at Pusa, is now distributing eggs and chicks of the best utility breeds to those



indenting for them. In Bengal Mr. Gourlay has opened a couple of experimental farms, but they are in charge of natives, and we never get any reports on them or even hear what breeds they have. In Bombay Mr. W. Roberts, the energetic Acting Director of Agriculture, has opened a small farm at Dharwar and has there those useful fowls known as the Bussorah breed, of which Mrs. Simpson, of Gadawara, was the introducer into this country. In Ebassam Mr. Hart is showing great interest, and we would suggest his enlisting the assistance of that keen and experienced expert Mr. Ferguson, of Dhamai. Government cannot work alone successfully, as so few of its officials know anything about poultry, though willing enough to encourage and back it up if they can get hold of any experienced European residents to help them.

### Open-Front Poultry-Houses.

One feature of poultry-keepers is their readiness to adopt progressive methods. Nothing has shown this more than the way in which the open-front house has found acceptance, at least where new buildings are erected. It is a right principle with common sense behind it. The *British Columbia Poultryman* gives an excellent illustration of a house 300ft. long, built on these lines, the results of which are recorded as remarkable in the health and vigour of the inmates.

### Canadian Poultry Producers' Association.

The inaugural meeting held at Ottawa was a great success, and standard grades were adopted for both eggs and poultry. These are each divided into three grades—namely, selects, Nos. 1 and 2, in accordance with quantity of flesh and quality in chickens, and freshness with size in eggs. Evidently Canadian eggs are not large, as the selects alone are expected to weigh 2oz. each, the No. 1's being 22oz. the dozen; but probably these will be advanced as time goes on.

### Shipping Coops.

Exporting fowls is now so general that it might be expected every breeder would know what is necessary. But the following extract from the *South African Poultry Journal* would show the contrary:

A few weeks ago Mr. Cope, of Durban, imported a very fine pen of Malay Games to supply an order. To his utter astonishment he found on receiving the birds (which consisted of a cock and two hens) that the exporter had shipped them in some orange boxes of such dimensions that we are surprised the railway authorities in England, to say nothing of the S.P.C.A., allowed them to travel for even one day's trip. The cock, which stands 33in. high, was in a box measuring 24 by 21 by 22in., and the two hens, one of which stood 24in. in height, were in a partitioned box measuring 16in. high, 42in. long, and 13in. deep. The birds on being taken out of the boxes after close upon four weeks' torture were in a most deplorable condition, the cock, especially, being quite unable to stand, and it is doubtful if he will ever be quite right.

Unless the birds had been changed from the original crate en route, it would be mere justice to name the shipper responsible for such barbarity, as he would be execrated by everyone.

### Roseworthy Laying Competition.

The complete Report by Mr. D. F. Laurie of the South Australian Laying Competition for 1908-9 is to hand, and is most complete in every way. It was divided into two parts: Section I., Light Breeds, and Section II., Heavy Breeds. In the former White Leghorns won with 1,447 eggs in the twelve months, or an average (six birds in a pen) of 216.16; and in the latter Silver Wyandottes with a credit of 1,262 eggs, or 210.33, both of which are remarkable results. Most striking, however, is the fact that the average for the 336 birds (56 pens) was 190. The breed figures are most interesting.

No. of Pens.	No. of Birds	Breeds.	Totals.	Average per Pen.	Average per Hen.
25	150	White Leghorn.....	31,252	1,250	208
1	6	Brown Leghorn .....	1,132	1,132	188
1	6	Black Leghorn .....	960	960	160
1	6	Minorca .....	1,173	1,173	195
12	72	Black Orpington .....	12,844	1,070	180
1	6	Buff Orpington.....	1,131	1,131	188
5	30	Silver Wyandotte.....	5,502	1,100	183
5	30	White Wyandotte.....	4,953	990	165
1	6	Columbian Wyandotte ...	1,108	1,108	185
1	6	Golden Wyandotte .....	949	949	158
1	6	Silver Pencilled Wyandotte	899	899	150
1	6	Partridge Wyandotte .....	743	743	124
1	6	Langshans.....	1,172	1,172	195

### Pipe Brooders.

In America what are known as continuous brooders have not been uniformly successful, due to the want of adaptability to the requirements of chickens, and in many cases they have been abandoned for the individual brooder, which, though involving more trouble, yields better results. The New Zealand Poultry Institute at Christchurch has recently installed a new plant with a pipe system, designed by Mr. John Jarvis, of Rongotea, Manawatu, for which is claimed complete success. This experiment will be watched with great interest, for a method capable of rearing chickens by means of pipes should not be beyond the skill and ingenuity of inventors. The results after, say, two seasons' use, will be of the greatest interest.

### Lectures in South Africa.

We are glad to notice a determination on the part of some of the poultry clubs in South Africa to prove that they exist for other than purely fancy purposes. In the issue of the *South African Poultry Journal* just received a paragraph appears stating that the Rand Poultry Club has commenced a course of monthly lectures, and that the Durban Poultry Club is making preparations to hold several discussions during the coming season. It is hoped that some of the more experienced members will undertake the duty of delivering lectures at convenient centres in the country districts, which would undoubtedly create great interest among farmers, both large and small, who have ample scope for establishing a lucrative industry.



## THE POULTRY-KEEPER'S OTHER INTERESTS.

By "HOME COUNTIES."

*Author of "The Townsman's Farm," "Poultry Farming: Some Facts and Some Conclusions,"*

*"The Case for the Goat," "Country Cottages," &c.*

"Poultry should be only one part of the stock."

—*The Secretary of the N.P.O.S. in the "Cyclopædia of Modern Agriculture."*

THE idea that a poultry-keeper is a man of a single interest can only have been promulgated by somebody who never saw a poultry-keeper. There is no end to his interests. To start with, poultry are by no means his only stock. He often has bees, he sometimes has goats or cows, not infrequently pigs, and he must be in a small way if he does not own a pony and

I propose in these pages to write about the interests of the poultry-keeper, which begin where his poultry-keeping leaves off. We all know that poultry-keeping, to be successful, is best followed along with some other things. It is well worth while, therefore, to give attention to these other things.

Take bees, for example. I have known more than



A GOOD TYPE OF HORNLESS GOAT, THE PROPERTY OF H. S. HUGHES.

trap. As for other interests than poultry-keeping, the poultry-keeper in the country, if not a workaday agriculturist, is ordinarily a bit of a small farmer. If he does not do a little farming, he has at any rate a garden. In that garden, in addition to his kitchen-gardening, there is often something like market-gardening on a small scale, and there is invariably fruit. Most poultry-keepers are also cyclists, and very many of them are amateur photographers.

one poultry-keeper who has found bees so satisfactory that his poultry-keeping has eventually become an adjunct to his bee-keeping. Most poultry-keepers in the country would certainly do well to be bee-keepers also. The difficulties are certainly not what they were. There has been a good deal of brains put into poultry writing, but not more than has gone into what has been printed about agriculture. Bee handbooks are not only clearly written, but cheap. Bee-keeping appliances are



also nowadays quite low-priced. Then the would-be bee-keeper has two excellent journals to fall back upon as well as his county bee-keepers' association, with its representative who comes to his place and solves all his difficulties. I hope often to write about bee-keeping. I shall wish, like Maeterlinck, "to speak of the bees very simply as one speaks of a subject to those who know it not." And sometimes poultry-keepers who are also bee-keepers may be kind enough to write and let us know how they are getting on. Of course, this is not the time of the year to start bee-keeping, but one may well discuss the subject in anticipation of the spring, when a start may be wisely made.

I believe it is in contemplation at Mr. Fels's small holders' colony at Mayland to put a clause in the leases forbidding those who hold land to keep goats. This step strikes me as somewhat precipitate. The idea that goats must necessarily be on a chain attached to a tethering-pin exhibits unacquaintance with the subject of goat-keeping. I have tried all the chains and tethering-pins and spring hooks on the market, and, as a result of dearly-bought experience, I never now tether a goat. It is a mistake to keep too many goats, and the number required for keeping an ordinary household in milk can easily be kept in a small enclosure. There they can have their food brought to them instead of being taken to their food. It seems a great waste to omit to pass garden refuse through goats or pigs. The amount of manure that goats will make by treading down litter is amazing. Provided their enclosure is not exposed to cutting winds, and gets plenty of sun, and is not wet underfoot—litter should make this out of the question—goats will thrive in quite a moderate-sized enclosure. And surely creatures which give, after kidding, at any rate, about two quarts of milk daily must be extremely useful to the poultry-keeper, when their size is so much smaller than cows and their habits are so much more accommodating. We shall frequently discuss the details of goat-keeping. No doubt, if there is convenience for cows, a great deal is to be said for the poultry-keeper's buying a cow or two, but so many poultry-keepers have not really adequate accommodation for good cows, nor other facilities for making them profitable. On the other hand, the grass they have, and the hay they can make, and the garden waste which is available are all adequate to the needs of the "poor man's cow."

Another subject I should like to discuss now and then is the question of cheap cottages and how to build them. Although some gibes have been levelled at the Letchworth Cheap Cottage Exhibitions, I am proud of my association with them, and of being responsible for "In Search of a £150 Cottage." The poultry-keeper is a man who has usually no money to waste, and when he builds or buys a cottage he wants good value. There is no reason why he should not get it. It is largely a question of forethought. The money that is ordinarily wasted on cottage building benefits nobody, certainly not the builder. Cottages are dear usually because of bad organisation in the planning, building

or paying for them. I hope in these pages often to deal with the best plans for cottages and outhouses, particularly outhouses. Many of the plans which have been published with a view to providing particulars suitable for the erection of outbuildings for small holders have been grotesquely inefficient.

I have no space this month to let myself go in regard to one common fault of poultry-keepers who plant fruit-trees. The fault is trying to have a meadow as well as a fruit plantation. Grass is deadly to trees. If you don't believe it, read the Woburn Report, or cycle over to Ridgmont and look at the grassed and ungrassed trees. Even in the case of old trees it is difficult to know at what age a tree would not do better without grass than with it. If you have to plant trees next month in a meadow, dig five or six feet square holes for them, and never in the future allow the grass to grow over the dug ground.

## PHEASANT-REARING AS AN ADJUNCT TO POULTRY-FARMING.

*To the Editor of the ILLUSTRATED POULTRY RECORD.*

SIR,—Attention was called to the rearing of pheasants, as an adjunct to poultry-farming, in a letter that appeared in the August number of the ILLUSTRATED POULTRY RECORD, in which reference was made to an experiment that was being tried in artificial hatching and rearing of pheasants. For the purpose of the experiment eggs were supplied by Captain Freeman from his pheasantries at Beckford, which were incubated by Mr. Wm. Tamlin in his home at Teddington. On August 1 thirty-six strong, healthy poults were hatched, and these were distributed amongst three people who undertook to try to rear them; but owing to a chapter of accidents only a few of them were reared. Mr. Monier Williams was more successful with some half-bred Mongolian pheasants at the end of last year. Mr. Russell sent him a basket full of eggs which were being used for household purposes. Having a second-hand Hearson's, Mr. Williams put some of these eggs into the incubator, and, to his surprise, hatched out seventeen strong pheasant chicks. These he put into a home-made foster-mother, and succeeded in rearing to maturity some healthy birds, which he handed over to a farmer's wife in the neighbourhood. Both these experiments were made at the end of the breeding season. It is quite evident that pheasants can be hatched in an incubator. Mr. Tamlin hatched out 80 per cent. at the Royal Agricultural Society's Show at Gloucester this year; the young birds were taken to Somersetshire, where they were all reared by fowls and turned into the coverts except six, which caught cold on the way down.

Mrs. Mitchell, a lady residing in South Norwood Hill, in a house with a lawn and an orchard beyond, has a pen of Golden Pheasants and a pair of Golden Amhersts. Last year she had 65 eggs from the pen of Golden Pheasants and 67 from the Golden Amhersts. —Yours, &c.

J. GODWIN EDWARDS.



## THE WESTMERIA COMPANY.

WHEN one talks about a manufacturing town, one thinks of Birmingham or Wolverhampton, Leeds or Halifax, or any other of the great centres that shout aloud the fact of their commercial enterprise and their commercial importance. Rarely is a thought given to another and humbler sort of town that produces articles of commerce, the sort that is little more than a village by the side of its great brothers and sisters, that can only boast a tiny fraction of their vast population, and that year after year does its work so quietly and modestly that, even when one is on the spot, one hardly realises that it has any work to do. Yet there are dozens of these small towns scattered throughout the home counties, each of which contributes a share to the national production, and if the aggregate of these shares, contributed by the small towns

with populations of four figures or thereabouts, were reckoned up, the sum of their commercial production would be found to be a very considerable item in the total amount. The town of Leighton Buzzard, hidden away in the heart of Bedfordshire, is one of these modest manufacturing places; and it would seem to be a typical example of the quiet, unassuming sort of manufacturing town we have mentioned. It has been there since Domesday; it is, in point of size, long rather than large; no one walking from the station up the wide main street to the market place on an ordinary week-day would imagine that the town possessed anything more important than its fine Gothic Preaching Cross; its life to the casual observer seems quiet and leisurely to the point of sleepiness. Yet quite a number of important articles are produced at Leighton,



THE WORKSHOP

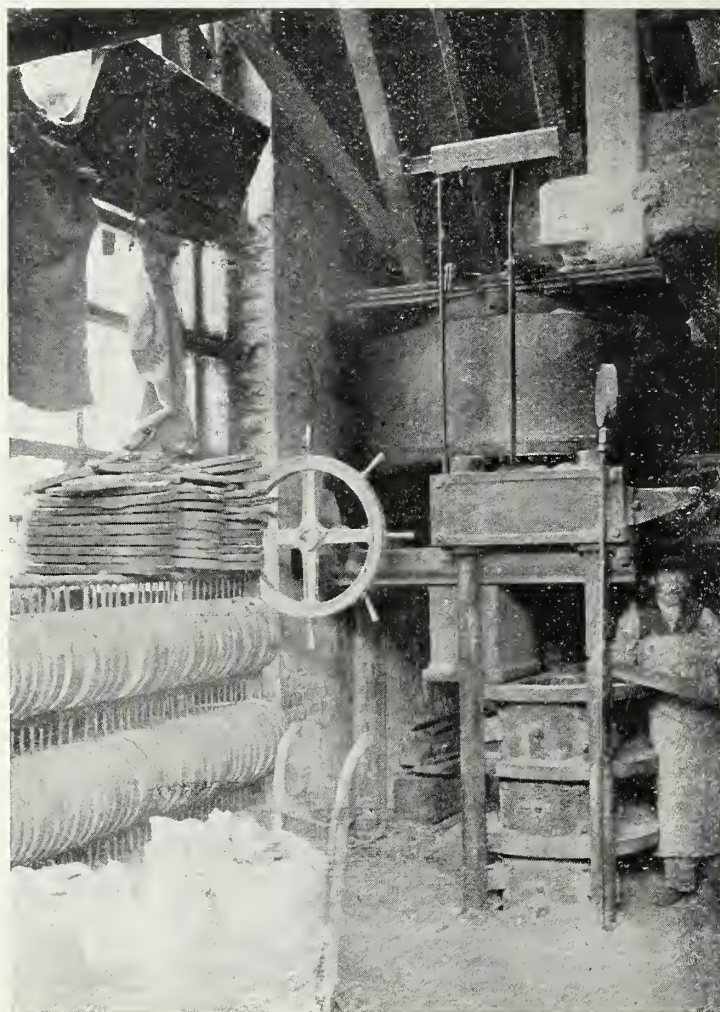
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## TRADE SUPPLEMENT

and it is the home of at least one big manufacturing concern, whose local trade is as nothing to what it does outside the locality. This is the Westmeria Company, makers of poultry food and appliances.

We may remark here upon an apparent anomaly. While nearly every poultry-keeper in the civilised world has heard of the Westmeria brooder, Leighton Buzzard itself hardly knows the name of the Westmeria Company. Search the town from end to end, and you will find the name neither on door nor wall. Question the inhabitants diligently, and two out of three will profess entire ignorance of its whereabouts. But if you ask for Messrs. Thomas Brantom and Co., Limited, anybody will direct you to—the Westmeria Company! The explanation is that Messrs. Brantom, the well-known cattle food manufacturers, whose business connection with Leighton dates from 1865, have taken over the Westmeria concern; and since the vast bulk of their trade in that concern is done with outside customers, and not locally, and the firm of Thomas Brantom has been established so many years, it has been deemed wise not to invite confusion by altering or adding to the firm's name. If, therefore, you would find the Westmeria premises quickly, ask for Messrs. Brantom's. You will straightway be directed to the Canal Wharf, where, on the right-hand side of the road, is a small colony of buildings and offices for the firm's clerical business; and on the left, down a short length of lane, the mills that convert raw foodstuffs into the preparations in which Messrs. Brantom have specialised. And from here a short walk will take you up North-street to



AT THE MILLS.

[Copyright.]

No. 92, where, in premises adjoining a double-fronted house, you can be shown the workshop where the Westmeria Brooders and Incubators are fashioned, and where the vast quantity of timber required for this branch of the business is stored. And at the far end of the Market Square there is yet another depot for the foodstuffs, &c., produced by the mill.

A business that caters, as regards foods, for the needs of practically every sort of agriculturist naturally requires the very best organisation and equipment, and it need hardly be said that the mills—where we may begin our brief survey—are fitted with the most up-to-date machinery. As an example, we may instance the powerful hydraulic machinery on the ground floor, by means of which the firm's "Poultry Cake" is produced. In one



A BROODER IN PROCESS OF MANUFACTURE. [Copyright.]



operation, one might say—for the various processes follow each other automatically, and without human intervention—the raw materials are ground, cooked, and delivered finished to the attendants. The cleaning and dressing of the Westmeria dry chick food is also carried on here, and it may not be out of place to mention that the reputation enjoyed by the firm for their No. 1 chick food is due to the care exercised in using sound and wholesome ingredients only. There are fourteen different kinds of seeds, cereals, and meat in this food; the insectivorous food, so necessary

which are all carefully seasoned before they are made up; while on the first floor is the large, well-lighted workshop where the actual construction of foster-mothers, incubators, &c., proceeds, and which is flanked by a smaller room, used as a smithy, for the production of the necessary metal fittings. Every appliance that is turned out receives the most searching examination before its dispatch, the same thoroughness being observed in the case of the incubators, "British," "Westmeria," "Western," and "Colonial," that have found favour at home and abroad. As



THE SMITHY.

[Copyright.]

to the health of young chicks, being Brazilian dried flies. This chick food, and the poultry cake for fattening, may be considered two of the firm's most notable specialties in foodstuffs. Leaving the mills for the North-street premises, one finds the plant for the manufacture of the famous brooders to be no less complete than the mill machinery. To describe the premises, shortly, the approach, either by way of the front depot or under an archway at its side, takes one to commodious storage room and timber shed on the ground floor, the timber being American white pine and other woods,

soon as the goods are ready for removal, a sliding ladder is put up from the courtyard to the door of this workshop, and they are expeditiously and safely transferred to the waiting vans.

It is not our custom in these supplements to give many details of the finished wares of a particular firm, our object being mainly to describe the place where such wares are produced and, as far as possible, the manner of their production. Technical details are best left to the illustrated catalogue, where they can be set forth with the fulness of text and illustration that induces perfect comprehension, and where



## TRADE SUPPLEMENT

they can be studied by anybody who takes the trouble to write for such a catalogue. In the case, however, of the Westmeria Company, we feel bound to call attention to at least two articles of manufacture, that, in spite of the greatly divided opinion that exists as to such things, embody principles of construction that are almost universally accepted as the right ones. One of these articles is the brooder, which has now gained a position of historic importance in the poultry world. First patented in 1889, the Westmeria was quickly pronounced by experts to be the first successful foster-mother invented. The movable brooder house which the firm is now producing, and which enables its chicken occupants to be wheeled to fresh ground when necessary, is the first that has been designed for rearing a large number of chickens under really favourable conditions, and is a most interesting development of the original invention. This portable brooder is now made for raising about 300 chickens at a time. It is built of well-seasoned timber, and rests on four strong iron wheels; the roofing is asphalted, and the iron and woodwork are painted and well finished in two colours. But the principal feature, perhaps, is the sliding roofs on the back and front of the houses, a new idea in ventilation that not only enables the chickens to enjoy the maximum of fresh air and sunshine, but gives easy access to every part of the brooder. As in the Westmeria Brooder, the whole space is partitioned so that no more than fifty chickens are together in one compartment, and thus overcrowding is impossible; and different temperature can be maintained in the various compartments so that it is possible to rear chickens of different ages requiring different degrees of heat. The other article of interest is the Westmeria Breeding-Pen. This is designed to ensure stability, warmth, and freedom from damp. The roof and nest-boxes have an extra covering of asphalted

roofing; the walls, doors, and roof are built of stout tongued and grooved wood. The pen is divided into two compartments, communicating by a trap-door, and possessing also independent trap-doors that enable each compartment to be used as a separate house. Ventilation in the roosting compartment is secured by adjustable canvas sliding shutters on the front, and the scratching-shed contains several ingenious contrivances for economising labour.

The Westmeria Company imports a good deal of its material from abroad, and since London, forty miles distant, is the nearest port to Leighton Buzzard, the matter of economical carriage would at first sight appear to be a difficult one. The difficulty, however, is surmounted by the canal. From the Canal Wharf, to which we have already referred, this water-way—which follows, roughly speaking, the course of the London and North-Western Railway line—meanders south-eastward through Bedfordshire, Hertfordshire, and Middlesex to Brentford, where it empties itself into the Thames. The produce that arrives in London near this point is transhipped to barges, which convey it direct to Leighton Buzzard, where it is



THE FINISHING TOUCHES.

[Copyright.]

unloaded at the very headquarters of the Westmeria Company. This method of transport is enormously cheaper than railway rates; we lay stress on this point, because it explains to a large extent how the Westmeria Company, located as it is in a comparatively out-of-the-way place from the shipping point of view, yet continues to offer its wares at prices so reasonable in view of their high quality. Of course, other things are necessary also in order to make this possible—good organisation, management, enterprise, experience. As to the organisation and enterprise, one may say that these are self-revealing, while the present foster-parent of the Company—to wit, the old-established business of Messrs. Brantom—sufficiently guarantees all the experience that is necessary.





[Copyright.]

## THE PREMIER POULTRY FARM.

WHETHER by good or evil fortune, the day of our visit to Thuxton, Norfolk, turned out to be windy and wet. There were fine intervals, however—intervals in which the sun shone with an August warmth, and set the soaking grass a-shimmer with a thousand points of light; other intervals in which that same sun battled only half successfully with the bold cumulus clouds that chased each other across the sky, at times emerging with triumphant heat and vigour, and at times “doused” so effectually that the very light of day seemed to have departed. It was fine weather for the student of stormy skies—and few English counties can show such skies as Norfolk can—indifferent weather for getting about a large farm, and precarious weather for photography. Yet it had its compensations, in that when it was good it was excellent, and when it was bad—well, it brought home to one the difficulties in the way of successful poultry-breeding on a high upland situation, such as the Premier Poultry Farm occupies. For the farm stands very high indeed—very nearly, indeed, on the highest point of Norfolk.

It was this fact of altitude that came home to us as we battled with the wind, and, combined with another fact—viz., that the soil is clay, solid enough to hold the water like a sponge

—induced certain sober reflections. For it explained in a flash how it is that Mr. Henry Abbot, the sole living representative of the firm of Abbot Brothers, and proprietor of the Premier Farm and its big business, has so big a reputation for providing very vigorous stock birds that lack nothing in point of breed. Birds that can be made to thrive in the climatic conditions that obtain there will thrive almost anywhere, given reasonable precautions. There can be no doubt on this point. Neither can there be any doubt as to the difficulties of bringing such stock to maturity, of the extra care required, of the special skill and knowledge that must be brought to the mating, hatching, and rearing of birds bred under these conditions. If the latter are conducive to vigour in pure-bred adult stock, it is no less obvious that the breeding process demands a more than ordinary forethought and talent.

It is evident from past results that Mr. Abbot possesses all the qualities of a successful breeder. The object of this article is not to describe these qualities, but to illustrate them by an account of some of the details of his management. But, to begin with, we must briefly describe the character of the farm. It covers over one hundred acres, and is not confined to poultry-raising alone. There are live stock of many descrip-



## TRADE SUPPLEMENT

tions, acres upon acres of meadow, fruit-trees, and, in fact, all the appurtenances of a general farming establishment. Owing, then, to the extent of available ground, the poultry-breeding here is not a mere matter of houses and runs; Mr. Abbot is a firm believer in the colony system, and employs it conjointly with the other, the luscious meadows divided by shady hedges being fine natural ground for the purpose. As one approaches the farm from Thuxton Station one sees these colony houses between the trees, and is forcibly struck by the spaciousness of the

shells of useful places, such as an office, an exhibition-room, and so forth. Across the road is the fine range of recently-erected exhibition breeding-pens, where we may cry our first halt.

These pens are destined for the aristocracy of Mr. Abbot's breeding stock. At the time of our visit they were hardly finished, but the houses looked very pleasing in their white paint, and the runs lacked only the finishing touch to their wire netting enclosures—namely, a metal skirting board to run along the bottom, and so screen the occupants of one pen from those of the next.



THE NEW EXHIBITION BREEDING - PENS.

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ground allotted to each house—if one can so describe it—and by the sense of extreme roominess. The proprietor's residence, a pretty red-brick building, stands on the higher ground, with farm buildings to the rear of it, and flanked on the near side by—a line of railway coaches! Really, these railway coaches should have a paragraph to themselves. When one first sees them one thinks one has happened on a siding of the Great Eastern Railway. Closer examination reveals that the coaches are neither on wheels nor on metals, but are merely the unique-looking

There are forty of these pens, twenty on each side, run abutting on run. The houses are the combined roosting-house and scratching-shed type, open-fronted, and they possess several ingenious contrivances. One is a V-shaped feeding-trough, let into the back of the house in such a manner that, by releasing a catch, the trough can be tilted from the inside to the outside, filled with food from the outside, and tilted back again. The advantage of this trough—and we believe the same principle is to be applied to the drinking vessels—can be stated in a brief



sentence. A man can walk along the grass at the back of the houses, outside the enclosure altogether, and administer food to each house in the shortest possible space of time, and without the opening and shutting of gates that would be necessary were he obliged to get at the houses from the other side. The fittings of the houses are designed with a view to economy of labour and to cleanliness. Perches, dropping-boards, and the nest-boxes underneath slide in and out of grooves, and can be removed in a second. The walls of the houses are on a solid brick foundation, and the flooring consists of building rubble, with a top dressing of peat moss or sawdust for scratching purposes. Peat moss has hitherto been the litter most favoured by Mr.

the original ones; and more in the field beyond the duck pond. Most of these may be said to be "crowned with the grace of years," but it is not because they are not up to date, or in any other way inadequate, that we fail to describe them in detail; it is simply because our supplement is limited to four pages. Moreover, our object in these columns is to try and suggest in as few words as possible the character, the essential inwardness, so to say, of the establishment under review; and it seems to us that, in this case, the character of the Premier Poultry Farm and its business is best symbolised by the range of exhibition breeding-pens, of which we have already given an account, however inadequate it may



TOULOUSE GEESE AT THE PREMIER POULTRY FARM.

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Abbot, but we understand that he is becoming a convert to sawdust. The runs are grass, and plenty of it. Communication between them is obtained by doors which can be securely shut without any trouble by a very handy form of iron catch, or clamp, working on a hinge, and so simple that it can be manipulated by the touch of a finger.

There are other houses and runs—plenty of them—on more distant parts of the farm. A singularly pretty range, of which we are able to give a picture, accommodates nine pens; in these the grass grows long and luxuriant, and plenty of young fruit-trees and firs afford a welcome degree of shade. There are runs, too, almost next to the exhibition breeding-pens; these were

be. For this range of pens, as we have intimated, are for the cream of the poultry stock, for the *doyen* carefully selected for mating out of the vast flocks and many breeds established throughout the remainder of the estate. Mr. Abbot breeds primarily for exhibition stock. The eggs that he sells are mostly eggs for setting. There are, of course, birds that are unmarketable for this purpose; there is always a surplusage of eggs that must be cleared, and is cleared, off the premises every week, and both the "wasters" and the surplus eggs are disposed of for the table. But the main business of the farm is the production of exhibition and utility birds, with this reservation, we should add, in view of some exhibition birds that



## TRADE SUPPLEMENT

are seen, that Mr. Abbot adheres strictly to type.

Mr. Abbot's secrets of feeding and management are his own, and we are not immediately concerned with them. We may mention, however, a strong belief in the virtues of boiled wheat, varied by boiled oats, as a morning feed. There comes to mind, also, a singularly neat, spotlessly clean, well-designed washing-house for birds about to be shown; but there is no ostentatious display of exhibition "properties." There is an incubator-room, modest in dimensions and capacity like the rest. We saw no foster-mothers. We heard of no patent foods warranted to make

Bantams and Gold Polish; these are a few samples. He breeds Pekin, Rouen, Cayuga, Aylesbury, Buff Orpington, and Indian Runner ducks. We photographed a fine flock of Toulouse geese, waddling complacently in the meadow next the farmstead.

Inside, while enjoying Mr. Abbot's kindly hospitality, we were enabled to admire the array of challenge cups and other trophies that set the seal on a breeder's success. 1905 and 1906 were great years for him in regard to poultry. He had a first and three seconds for fowls at the Royal; first and second at the Dairy Show; special, two firsts, and second



OUTLYING HOUSES AND RUNS.

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winners. In short, while Mr. Abbot's methods seem homely and patent to the eye, the reason of his peculiar success is *sub rosa*. Of his present stock we have not left ourselves space to say much, nor, since this is not a catalogue, could one very well particularise, seeing that he keeps every known breed that exists, and some that are hardly known. A more than promising flock of Light Brahmas, another of Barred Rocks, in the meadows; in the nine-pen range, Houdans and Silver-laced Wyandottes; in the new breeding-pens, Black Orpingtons, mammoth Bronze turkeys, and—Mr. Abbot has a taste for the rare—Japanese

at the Crystal Palace; cup, special, first, and second at Birmingham; silver medal, three firsts, and four seconds at the Dairy Show; special, three firsts, and two seconds at Peterborough; special, medals, trophy, five firsts, and one second at the Crystal Palace International; a first and two seconds at Birmingham. In 1908 there were special, two firsts, and one second at Birmingham; and this year many awards were gained at Redruth and the Highland Society's Show. These are but a fraction of the successes gained in recent years.



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## BIBLIOGRAPHY OF POULTRY.

COMPILED BY EDWARD BROWN, F.L.S.

*Compiler's Note.*—With the object of securing as complete a list as possible of Poultry Books, it is proposed to give from time to time particulars as to such as are known. My own library embraces nearly 350 volumes on this subject, but there must be many not contained therein. I beg respectfully to request the kindly co-operation of owners of books not named, with a view to making the list exhaustive. In sending particulars I request that the following be stated: (1) Full title, and sub-title, if any; (2) Author's complete name, with any information respecting the writer; (3) Place of publication and name of publisher; (4) Date of publication, if given; (5) Number of edition; (6) Number of pages and size of book; (7) If illustrated; and (8) Whether in paper or cloth. Acknowledgment will be made of source of information. The books marked with an asterisk I have not been able to verify, and fuller details will be welcome both as to books and authors.

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\* **QUEST OF THE LEGHORN:** A Book of a Few Theories, Many Facts. Hartford, Conn., U.S.A.: Mercantile Printing House. 1880.

**Babcock, Harmon S.** (American Writer on Poultry. ) See "American Poultry Association" and Felch, J. K.)

**A POULTRY COMPENDIUM:** Being a Brief Treatise on the Rearing and Management of Domestic Fowls. Hartford, Conn., U.S.A.: H. H. Stoddard. 62 pp., illustrated, paper cover. 1885. 12mo.

**Bacon, D. F.**

**A TREATISE ON THE PROFITABLE MANAGEMENT OF POULTRY.** London: The Author. 29 pp., paper cover. 1888. 8vo.

**THE VERY POULTRY BOOK I WANTED FOR PROFIT AND PLEASURE.** London: The Author. 136 pp., illustrated, paper cover.

(?) 1890. 8vo.

**Bacon, G. W., F.R.G.S.**

**HOW TO SUCCEED IN POULTRY FOR PROFIT AND EXHIBITION.** London: G. W. Bacon and Co. 112 pp., illustrated. 1876. 12mo.

**GUIDE TO SUCCESS IN POULTRY-KEEPING:** Showing How to Make Poultry Pay in Summer and Winter; with Many New and Valuable Hints, and 200 Golden Rules. (A revised edition of the former book under a new title.) London: G. W. Bacon and Co., 122 pp., illustrated, paper boards (?) 1888. 12mo.

**Baily, John** (a well-known judge, member of the London firm of Poulterers).

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[Afterwards incorporated in "Fowls," by the same author.]

\* **FOWLS:** A Plain and Familiar Treatise on the Principal Breeds, with which is reprinted "The Dorking Fowl." London: Henningham and Hollis.

1852. 12mo.

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———— Third Edition. London: Henningham and Hollis, 111 pp. 1860. 12mo.

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1876. 12mo.

**Baldamus, A. Ed.**

\* **DAS HAUSGEFLÜGEL.** Dresden, Germany: G. Schönfeld, 187 pp. 1893.

**Balduzzi, C.**

**TRATTATO COMPLETO DELLE MALATTIE E DELL' ALLEVAMENTO DI TUTTI I VOLATILI DA CORTILE.** Milan, Italy: Casa Guigoni, 304 pp., paper cover. 1891. 12mo.

**Baldwin, T.**

\* **POULTRY.** Dublin: 20 pp. 1886. 8vo.

**Balfour, Francis M., B.A.** (See Foster, Prof. Michael.)**Barton, Frank Townend.**

**EVERY-DAY AILMENTS OF POULTRY.** London: Dean and Son, 80 pp. 1896. 8vo.

**Bartram, Rev. E., D.D.** (Rector of Wakes Colne, Essex; formerly Head Master of Berkhamstead School.)

**FOWLS FOR THE FARM AND COTTAGE.** London: Society for Promoting Christian Knowledge, 16 pp., paper cover. *Pamphlet.* 1895. 32mo.

**Bateson, W., M.A., F.R.S., V.M.H.** (Professor of Biology, University of Cambridge.)

**MENDEL'S PRINCIPLES OF HEREDITY.** Cambridge: University Press, 396 pp., portrait of Mendel, and diagrams. 1909. 8vo.

**Baum, L. Frank.**

**THE BOOK OF THE HAMBURGHES:** A Brief Treatise upon the Mating, Rearing, and Management of the Different Varieties of Hamburgs. Hartford, Conn., U.S.A.: H. H. Stoddard, 71 pp., illustrated, paper cover, 1886. 12mo.

**Baynes, R.**

**TWENTIETH-CENTURY FEEDING; or, The Key to Success.** Penrith: B. T. Sweeten, 20 pp., paper cover. *Pamphlet.* Undated. 24mo.

**Beale, Stephen** (pseudonym of Edward Brown, F.L.S., which see).

**PROFITABLE POULTRY-KEEPING.** London: Geo. Routledge and Sons, 254 pp., illustrated. 1883. 8vo.

———— American Edition. Edited with additions by Mason C. Weld. New York: Geo. Routledge and Sons, 258 pp., illustrated. 1884. 8vo.

———— New Edition. Revised. London: Geo. Routledge and Sons, 276 pp., illustrated. 1891. 8vo.

———— New American Edition. Edited with additions by Mason C. Weld, and a Chapter on American Incubators, by H. S. Babcock. New York, U.S.A.: Geo. Routledge and Sons, 278 pp., illustrated. 1895. 8vo.

**Beeton, Samuel Orchard** (a London publisher; husband of famous writer on Cookery).

**BEETON'S BOOK OF POULTRY AND DOMESTIC ANIMALS:** Showing How to Rear and Manage Them. London: Beeton and Co., 162 pp. 1862. 12mo.

———— New Edition. 1870.

[Part of a work dealing with all kinds of Domestic Animals, from Hedgehogs to Cats.]

**Bennett, John C., M.D.** (See Miner, T. B.)

**THE POULTRY BOOK:** A Treatise on Breeding and General Management of Domestic Fowls. Boston, Mass., U.S.A.: Phillips, Sampson, and Co., 310 pp., illustrated. 1853. 8vo.

[Contains "Constitution of the New England Society for the Improvement of Domestic Poultry," organised February 23, 1850.]

\* ————— English Edition. London: Delf.

(To be Continued.)



# THE MARKETS & MARKETING

CONDUCTED BY    VERNY CARTER

## Market Reports, Week Ending August 28.

Supplies of all classes of poultry were plentiful, prices as a rule being very reasonable. Buyers were inclined to be fastidious, and were difficult to please on account of the abundance of supplies. The approach of the partridge season did not help matters. Ducklings met with poor demand, the public being tired of them. Foreign poultry and game were practically over for this season. The demand for English eggs in London was very slack, but at seaside resorts they were in great demand. Foreign eggs remained firm.

## Week Ending September 4.

Trade was dull, and poultry realised the lowest values recorded so far for this year. The West-End trade was below the normal for the period. The coming in of partridges brightened up the poultry markets a bit. Demand for English was very slack, but foreign eggs remained firm.

## Week Ending September 11.

Demand for poultry was slack, but values were inclined to rise. Game met with good brisk demand, as supplies were short owing to delay in harvest. Foreign eggs were very firm, prices ruling higher. English were in better demand at enhanced values.

## Week Ending September 18.

Trade was inclined to be a little brighter, although values did not alter. It was felt that the worst was over, and that prices would commence to rise. Game in good demand. Foreign eggs advanced in value. Demand for English in London increasing.

## Foreign Imports of Eggs During August, 1909.

The imports of eggs for the month under review show an increase of 17,434,200 eggs above those recorded for August, 1908. The total deficit for the eight months of the present year, as compared with the corresponding period of 1908, amounts to 71,166,120 eggs. The countries which show the greatest falling-off in quantities are Denmark, Italy, and Austria-Hungary. A table showing the increase and decrease in values per great hundred is given in the next column.

	1908.		1909.
	s. d.		s. d.
Russia ...	6 7 $\frac{3}{4}$	per gt. hd.	6 6 $\frac{1}{4}$
Denmark ...	8 6	"	9 0 $\frac{3}{4}$
Germany ...	6 10 $\frac{1}{2}$	"	8 2
France ...	8 5	"	8 11 $\frac{3}{4}$
Italy ...	8 7 $\frac{3}{4}$	"	9 0 $\frac{1}{4}$
Austria-Hungary ...	7 3 $\frac{1}{2}$	"	8 8 $\frac{3}{4}$
Other Countries ...	7 1 $\frac{1}{2}$	"	8 0 $\frac{1}{2}$

## THE COLOUR LINE IN EGGS.

By EDWARD BROWN, F.L.S.

*Hon. Secretary, National Poultry Organisation Society.*

THE eye is said to be the inlet to the soul. That it is to the stomach may be accepted without question. We prefer food which appeals alike to sight and palate. Perhaps it may be that in this way there is a mystic influence which assists digestion, but upon a physiological question of that kind I am not qualified to express an opinion. The phenomenon is, however, worth investigation. What looks nice often tastes nice. I well remember, when a child, being promised a brown Cochin China egg for my supper if I would be a good boy, and rejoiced in securing what was regarded as worth an effort in self-repression.

How and why the present-day preference for brown or tinted-shelled eggs arose is difficult to learn. Nor is it necessary to spend time upon it. Enough for us that the fact is as stated in our British markets. It is not so everywhere. Strange to say, in America, whilst New Englanders want, will have, and will pay more for, brown-shelled eggs, the New Yorker demands his hen fruit white in the shell, and gives the higher price for these. In nearly all the Continental countries I have visited, from the Atlantic to the Caspian, from the Mediterranean to the Baltic, the eggs have white shells, and where, in France and Denmark especially, breeds laying tinted-shelled eggs have been introduced, primarily it was to meet the requirements of the English markets.

Whilst it may be true that, at one time, ere home producers had caught a faint glimmering of what has since been proved—namely, that there is money, and plenty of







it, in poultry-keeping, during the autumn and winter months brown-shelled eggs were more likely to be native and not imported, and therefore worth more, the question we have now to ask is, given a brown-shelled egg and a white-shelled egg of equal size and age, and produced in the same place, has one any greater food value than the other? We do not eat the shell. Chemists and cooks, poultry-keepers and purveyors, have tried to discover a difference between the two classes of eggs named—and failed. They cannot discern the slightest justification for a preference in either direction. Yet we and every one of them would choose the browns if a dish of boiled eggs were on the table, and no one was looking. It is the eye and nothing more. The manager of a leading London Dairy Company told me he could sell deep brown-shelled eggs at sixpence per dozen more than any others. Yet a more unjustifiable fad than this is not

to be found in the whole gamut of modern food supply. An egg should be valued for its freshness, flavour, and size, not for the colour of its shell, which is thrown on to the dust-heap or into the fire. Retailers, who are but the mouthpiece of consumers, cry out for tinted-shelled eggs, and frequently refuse the finest grades which are below the colour line. Is it not folly?

If some of those who have influence would repress their inherent predilections, and for the next twelve months eat only white-shelled eggs, or, if they feel the sun would have no brightness and sadness would dog their hours unless they have brown-shelled eggs for breakfast, let them instruct their cooks to dye them. That would help British producers to a considerable extent. A few flakes of permanganate of potash in the water will give a sufficient tint, and life will then be worth living.

## ANSWERS TO CORRESPONDENTS.

*The Editor will be glad to hear from readers on any Poultry Topics, and all Queries addressed to the paper will be answered if possible in the issue following their receipt. The desire is to help those who are in any difficulty regarding the management of their poultry, and accordingly no charge for answering such Queries is made. Unless stated otherwise, Queries are answered by*

F. W. PARTON,

*Lecturer in Aviculture, The University, Leeds.*

### Poultry Farming.

I am starting a poultry farm at the beginning of the New Year in the Lake District. As you most probably know, this is not a very suitable spot for poultry-rearing, and I should not attempt to do so but for special reasons. Will you please tell me: (1) What breed you could recommend as a hardy bird to withstand the damp cold weather they have up there, and must be a good table bird? (2) I intend going in largely for ducklings as I think they will thrive better than anything else up there. What breed or cross would be best that is hardy to rear and a good table bird at an early age? (3) I have experience of poultry, but wish to thoroughly get hold of the best method of plucking and dressing for table. Could you advise me where I could procure this experience? I think that I should be able to learn this in about a month. I know of one or two colleges, but these good people will not teach separate branches of the industry like this, but insist on you taking a course of instruction, which I don't want. (4) I propose to buy duck and hen eggs to start in January and so get some birds ready for Easter and the summer season, and keep the best for stock purposes next season, not buying any stock birds to begin with. Do you think this the best plan?—A. A. (Surrey.)

The district you name should be a good one, as it has a kindly, porous soil, evidently better than you think, proved by the fact that Dorkings thrive excellently there. In reply to your queries. (1) Presuming that you desire white-fleshed birds, White or Buff Orpingtons, the former preferred, as they lay rather the larger eggs. (2) Aylesburys or Pekin-Aylesburys. (3) As you are going

to reside in Westmorland, the best plan would be to apply to the County Farm School at Penrith, where teaching in killing and dressing is given, and probably arrangements could be made there. Or you might go for a week or two to a good fattening plant in the South of England and afterwards to a poultryman in London for a few days. The former would be the better plan, but if that is not feasible we shall be glad to give you names of the latter. (4) Buying stock is to be preferred, but securing eggs, if you can get them in January, seems to be the only course you can adopt.—E. BROWN.

### Breeds for East Africa.

I have been consulted with regard to fowls for East Africa. They will not be in the Coast district, but at an elevation of 4,000ft., which the people out there describe as semi-tropical. The birds are wanted both for table and eggs. What breed or breeds would you recommend? I suppose Leghorns for egg-laying would be a likely breed? The question is whether for table purposes it would be advisable to send out a couple of Game Cocks to cross with the native hens?—R. A. (Yorks.)

Experience has shown that the lighter bodied races are most suitable for tropical and semi-tropical climates. The larger and less active breeds do not appear to be able to bear the great heat, and they rapidly lose flesh, though with such an elevation as that named this result would not be found to the same extent as on the plains. I do not think that under such conditions table qualities



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can be retained to the same extent as in temperate zones. The game fowl should thrive well there, and probably would be of the greatest value for meat production, but in the absence of knowledge as to the native fowl it is difficult to anticipate what the result would be. It could hardly fail, however, to yield an improvement upon the common fowl of the country. For eggs, Leghorns would be about the best, and the browns would be preferable to whites. An excellent cross for all-round purposes would be between a Black Red Game Cock, more especially of the Cumberland type, which are good layers, and Brown Leghorn hens, as in these the colour of plumage is the same. Possibly that might be the means of evolving a breed specially suited to the country.—E. BROWN.

#### Poultry Manure.

Will you kindly inform me : (a) Whether there are any recognised buyers of poultry manure ; (b) Approximately the price obtainable for small quantities ; (c) How it should be kept or prepared for sale ?—R. S. S. (Claygate.)

We do not know of any recognised buyer of poultry manure. Arrangements are usually made with some local market gardeners. In certain districts we have known it realise (dried) £3 5s. per ton, and in other localities as low as 25s. An average price, in small quantities, may be estimated at about the rate of £2 5s. a ton. It should be spread out in thin layers to prevent fermentation, and allowed to dry atmospherically ; it is then ready for sale. When it is to be employed for one's own garden, it should be mixed with dry earth or soot.

#### Composition of Breeding-Pen.

What is the right number of hens to run to one Tom ? Last year I kept about fifteen hens in a pen, but the chickens were very delicate, and I only reared about a quarter of what I hatched. My breed is Buff Orpington and Leghorn cross.—F. B. R. S. (Stratford.)

No hard-and-fast line can be drawn as to the number of hens to run with the male, as not only do the different breeds but also individual birds vary considerably as to their powers in this direction. However, with the breed you mention—namely, Buff Orpington and Leghorn cross—we would advise, provided that your run is moderately large, ten hens to each male.

#### Temperature of Egg Drawer.

I have a hot-air incubator, which I have been running last season at 105. My results were awfully poor, as I did not hatch more than 30 per cent. Was the temperature too high ? This is the only thing I can think of.—R. W. (Lyons, France.)

Undoubtedly the reason for your failure in hatching was owing to working your incubator at too high a temperature. The best results are obtained by commencing at 102½deg., gradually increasing, so that at the eleventh day the temperature is 104deg., keeping it so until the time of hatching.

#### Run Accommodation.

I shall be much obliged if you will let me know in your next issue the greatest number of fowl I can keep

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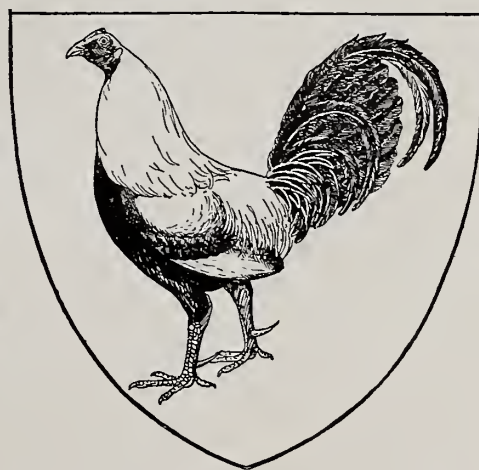
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with profit on my confined run, rough plan of which I enclose. I may say I am just venturing in fowl-keeping, and up to the present I have had very good results and very much pleasure. I bought three hens on August 3, and up to the end of that month I had sixty eggs. Since then I have bought two more, and would like to have one or two more, but feel that my place is too small, and therefore I seek your advice. I let the fowl out occasionally to run in the backyard (which is a fair size) for a change and also exercise.—J. W. (Liverpool.)

In the house and run of the dimensions stated on your plan, seven fowls may be kept. Of course, it will be understood that cleanliness must be carefully attended to, and the covered run, if laid down in ashes, must be frequently raked over and renewed from time to time, as required. Green food, grit, and other necessities, that cannot be obtained naturally, must be provided.

### Fattening Goslings for Christmas.

Please reply to the following questions: (a) What is the best breed for the Christmas trade? (b) What are the best foods? (c) Can goslings be reared successfully in confinement?—W. M. T. (Colne.)

(a) The Toulouse is most profitable for the Christmas trade. (b) The staple food may consist of barley-meal and middlings as the morning feed, oats and wheat (steeped) in the evening. At all stages in the life of geese green food must enter largely into their dietary. (c) Goslings can only be profitably reared where access to grazing land is possible.

### A Useful Cross.

Is the White Wyandotte and White or Brown Leghorn a good cross for egg-production? I live in a very cold and exposed place, where there is little or no natural shelter, and I find that Wyandottes pure do not thrive at all well. Your help will be greatly appreciated.—M. (Maude, N.B.)

The White Leghorn and White Wyandotte make an excellent cross, using the Leghorn male. Economically, the Brown Leghorn is equally good for your purpose, but the former is preferable owing to the chickens coming uniform in colour. All these breeds are extremely hard, and will do well in most positions, although, however hardy be the breed, shelter is a distinct advantage.

### Brief Replies.

P. R. W. (Cork): Hot-water.

R. W. S. (Finchley): 80 to 100.

G. W. (Ashrigg): From 10s. 6d. to 15s.

A. R. K. (Cley): See the September issue.

F. B. (Exeter): Water is not essential, but it is advantageous.

R. S. M. T. (Bath): We have forwarded your letter to the firm named.

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